FIJI'S SIXTH DEVELOPMENT PLAN

1971-1975

Central Planning Office,
Ministry of Finance, Suva

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119745

PREFACE

Fiji became politically independent on 10th October, 1970. The success of Independence will in many ways be determined by economic and social development. It is therefore appropriate that the outset of Fiji's independence should be marked by the publication of this Development Plan to guide the country's economic and social development over the next five years.

This Plan represents a statement of Government's economic and social policies. It has been formulated with the broad objectives of making the best use of Fiji's physical and human resources. More specifically, the Plan aims to moderate increases in income disparities within the Fiji society, to create more employment, to build a multi-racial society, to integrate the widely dispersed islands of the group, to enable Fiji to play a positive role in the South Pacific region and to achieve progress within a framework of economic, social and political stability. The policies, programmes and projects contained in the Plan, which seek to attain these objectives, are of course not rigid. As such the Plan should not be regarded as a blueprint. Flexibility is the essence of good planning and this Plan will therefore have to be continually reviewed and may need changes in the course of its implementation.

In terms of public investment the Plan aims to double the effort of the previous Development Plan. The Plan will therefore demand hard work and sacrifice on the part of us all. We have succeeded in building a buoyant and vigorous economy at the eve of Independence. Let us therefore, through this Plan, maintain and indeed improve on this record to build a better and more prosperous life for the people of Fiji.

K. K. T. Mara.

The Honourable Ratu Sir Kamisese Mara, K.B.E.,
Prime Minister.

ACKNOWLEDGEMENT

This Plan has been the product of an arduous effort extending over eighteen months. Ministries and Departments devoted time and effort to the formulation of their policies and programmes, and the Development Sub-Committee of civil servants and Development Committee of my Ministerial colleagues spent much time considering the policies and programmes set out in the Plan. The brunt of the work of co-ordinating and formulating the Plan was borne by my staff in the Central Planning Office under the direction and guidance of Dr. Earl C. Hald. To all the above and to all those who have contributed to the preparation of this Plan, I extend my thanks and appreciation.

Hon. W. M. Barrett,
Minister of Finance.

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EXPLANATORY NOTES

Since the Public Capital Expenditure Programme was finalised for this Plan, the Cabinet has made some minor changes in the distribution of funds within the planned expenditure for 1971. These changes are incorporated in the 1971 Capital Budget.

Totals in some larger tables may not add due to rounding. In all the tables the following convention is followed :

not available	. .
nil or negligible	—
not relevant	(blank space)

Throughout the text and tables values are in Fiji dollars and quantities are British weights and measures unless otherwise noted. Values for 1970 onwards are in 1970 prices unless otherwise stated. All national income data for 1969 and 1970 are preliminary estimates made by the Central Planning Office. Some common conversion factors are noted below.

1.00 Fiji dollar	=	1.148 US dollars
	=	0.478 Pounds sterling
	=	1.015 Australian/New Zealand dollars
1.00 acre	=	0.4047 hectares
1.00 mile	=	1.609 kilometres
1.00 ton (long)	=	1.016 metric tons
1.00 cwt. (112 lbs.)	=	50.8 kilograms
1.00 lb.	=	0.454 kilograms
1.00 Imperial gallon	=	0.455 litres

PART ONE

THE PRESENT ECONOMY

INTRODUCTION

Fiji lies at the cross-roads of the South Pacific, connecting Australia and New Zealand with North America. It consists of about 800 islands and islets straddling the 180th Meridian between latitudes 15 and 22 degrees south and spread over 100,000 square miles of ocean.

2. About 100 islands are permanently inhabited and 90 per cent of the total land area of 7,055 square miles is taken up by the two largest islands, Viti Levu and Vanua Levu. The main island, Viti Levu, comprises nearly three-fifths of the total; it is almost as large as Jamaica and it is the third largest in the "open" Pacific, ranking after New Caledonia and Hawaii.

3. Suva, the capital city, is 1,960 miles by air from Sydney, 1,317 from Auckland, 3,183 from Honolulu, 5,611 from San Francisco and 11,590 from England via New York and 13,380 via Sydney. Nadi, 135 miles by road from Suva, is a port of call for several of the world's major airlines. Fiji Airways provides internal air services and a regional service to Tonga, New Hebrides, the Solomons, Samoa, Gilbert and Ellice Islands, Papua New Guinea and Nauru.[1]

4. Fiji has a tropical climate without undue extremes of heat and humidity. The south-east trade winds blow from May to November, bringing temperatures to between 65° and 75° F. Between November and April, however, the winds are more variable and the temperature may rise to between 78° and 88° F. Rainfall averages 120 inches per year on the windward side of the major islands and between 70 and 80 inches on the "dry" side.

5. Population at the end of 1969 totalled 513,700 comprising some 219,800 Fijians, 260,600 Indians, and 5,600 Europeans, the remainder consisting of Part-Europeans, Chinese and other Pacific Islanders. The rate of population growth, which reached more than 3.5 per cent per annum in the 1950s, has fallen in recent years to under three per cent per annum.

6. Fiji became a British Colony by voluntary cession by its Great Chiefs on 10th October, 1874. Following a constitutional conference in London in 1965 Fiji was given substantial powers of self-government, with a Legislative Council elected under full franchise. A second conference in April 1970 agreed that Fiji would become a fully independent dominion within the British Commonwealth on 10th October, 1970.

7. The Fiji economy has traditionally been based upon agriculture, with sugar and copra as its leading elements. In recent years industrial development has been taking place at a faster rate, and rapid growth in tourism since 1967 gives every indication that this sector will assume great importance for future development. Overall economic growth has been fairly rapid in the past several years, and Fiji already enjoys a standard of living that compares favourably with neighbouring island territories. Per capita Gross Domestic Product exceeded $300 in 1969, and showed further growth in 1970.

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[1] Fiji Airways is to be named Pacific Islands Airways in 1971.

8. The programme described in this document is the sixth Development Plan formulated for Fiji. It will provide the framework for the newly independent nation's development efforts over the five-year period 1971-75.

CHAPTER 1

ECONOMIC DEVELOPMENT — 1945 TO 1970

This chapter briefly reviews Fiji's economic development from the end of the war to 1965. This is followed by an evaluation of the performance of Fiji's Development Plan V for the years 1966-70. The chapter concludes with a review of some of the problems that confront the Fiji economy at the outset of Development Plan VI.

Economic Progress, World War II to 1965

1.2 The economic development of Fiji from the end of the War to the early 1960s was characterised by:

(i) a high rate of population growth;

(ii) the early recovery of the major industries from the disruptions of the war;

(iii) favourable export prices;

(iv) a significant inflow of British capital development aid;

(v) the use of planning as an instrument for stimulating economic development.

1.3 Fiji's population rose from 260,000 in 1946 to 346,000 in 1956 and to 466,000 in 1965. Over the ten years 1946-56 the annual rate of population growth was 2.9 per cent and between 1956 and 1965 it was 3.3 per cent. The rate of growth was therefore exceedingly high by world standards, particularly during the latter period.

1.4 As elsewhere in the world, economic activity in Fiji was disrupted by the war but an early recovery was achieved by 1950. Sugar production averaged 118,000 tons annually between 1946 and 1950, as compared to an annual average of 86,000 tons during the war years. Likewise copra production, which averaged 20,000 tons during the war years, rose to an annual average of 31,000 tons during 1946-50. There were also increases in gold and banana production. The effects of increased production were enhanced by better prices for sugar and copra. As a result, the value of domestic exports more than tripled between 1945 and 1950.

1.5 The recovery in the major export products was even more pronounced in the 1950s with the enactment of schemes which brought about higher prices and higher export volume. This was the dynamic factor in Fiji's development over these years. The Commonwealth Sugar Agreement was enacted in 1950. This agreement introduced a negotiated price scheme which resulted in the purchase of Fiji's sugar at prices significantly above the world free market price. Moreover, Fiji was allocated a quota of 120,000 tons to be sold in negotiated price markets, principally the United Kingdom. On this impetus sugar cane acreage was considerably increased and improved technology and changes in farming methods were introduced. The result was that sugar production rose by more than 90 per cent between 1950 and 1960 and with better prices the value of production more than doubled.

1.6 But while the export sector improved substantially over the period production for domestic consumption did not fair as well. This relatively poor performance was reflected in the steady rise of food imports. Rice imports in 1960 were six times the level of 1950. Imports of fish doubled over the same period, as did flour and sharps.

1.7 The overall trend in the Fiji economy from 1950-65 is shown in Table 1.1.

Table 1.1 : Gross Domestic Product, by Economic Sector, 1950-65

($ million, current prices)

	1950	1953	1957	1963	1965
Agriculture, Forestry and Fishing	15.9	26.0	29.2	44.6	40.6
Mining and Quarrying	1.9	1.5	1.9	1.8	2.2
Manufacturing and Processing	3.9	4.6	6.3	13.3	14.9
Building and Construction) Electricity and Water)	2.0	2.7	4.3	6.8	8.0
Transport and Communications	1.0	1.9	2.4	7.8	6.8
Commerce	5.1	6.9	8.6	12.1	21.2
Government Services	3.3	3.4	3.5	5.9	8.5
Other Services[1]	2.9	3.8	4.9	16.2	18.9
Gross Domestic Product (at factor cost)	36.0	50.8	61.1	108.5	121.0

1 — includes tourism, real estate and property ownership.

1.8 Over the period the average annual growth of Gross Domestic Product (GDP) at current prices was about eight per cent. In real terms, however, the rate of growth was probably around five per cent per annum. Thus in relation to the rate of population growth of 3.3 per cent a modest growth in real per capita income was achieved over these years.

1.9 It can be seen, however, that growth during the period was uneven. Significant growth was achieved in the early 1950s as a result of the introduction of the price schemes for sugar and copra. Development from the mid-1950s was much slower although export prices continued to be favourable. The slow growth could be attributed to the relative inelasticity of agricultural production with respect to prices. This was particularly true for copra.

1.10 The high growth achieved in 1963 was almost wholly accounted for by the sugar boom of that year. Sugar prices soared to an unusually high level causing sugar receipts to jump by nearly 50 per cent and GDP by 20 per cent from the level of 1962. The buoyant condition continued into 1964 but by 1965 the sugar market slumped and Fiji faced a year of recession which continued into 1966.

1.11 Over the period primary production continued to be the major factor in development, contributing close to one-half of GDP. Sugar was by far the most important crop, contributing more than one-fifth of GDP and nearly two-thirds of domestic exports. Although manufacturing was expanding it still accounted for a relatively small proportion of GDP. Likewise, tourism, although expanding very rapidly in the early 1960s, was relatively small in its contribution.

Development Planning

1.12 It was from the end of the war that Fiji first embarked on development planning as an instrument for stimulating economic development. Early Plans, however, were simply capital development budgets for the public sector. The initiation of more sophisticated planning was closely tied to the introduction by the United Kingdom of the Commonwealth Development and Welfare grant scheme. Under the scheme British colonies were required to submit development plans in order to qualify for financial aid. On this impulse Fiji formulated its first Development Plan for the ten years 1949-1958. Besides this Plan three other five-year plans were formulated on the same basis covering the periods 1956-1960, 1961-1965 and 1964-1968. The size of each Plan and its proposed public expenditure among the various sectors are shown in Table 1.2.

Table 1.2 : Investment Allocation, Development Plans I-IV

(per cent share)

	1949-58	1956-60	1961-65	1964-68
Plan Size ($ million)	4.2	9.5	12.2	15.0
Sectoral Allocation (%)				
Economic Services	36.0	13.4	19.4	43.0
Social Services	25.4	25.3	15.8	23.0
Communications	34.2	60.8	50.0	20.0
Miscellaneous	4.4	0.5	14.8	14.0
Total	100.0	100.0	100.0	100.0

1.13 It will be noted from the table that the Plans were very much oriented towards the social and infrastructural sectors of the economy. It was only in the 1964-68 Plan that the economic sector received substantially higher allocation than the social and infrastructural sectors.

1.14 Financing of the Plans was largely from three sources :

(i) local revenue;

(ii) loans, both overseas and domestic;

(iii) Colonial Development and Welfare grants.

The relative percentage contribution anticipated in each Plan from these sources is as shown in Table 1.3.

Table 1.3 : Sources of Finance, Development Plans I-IV

(per cent share)

	1949-58	1956-60	1961-65	1964-68
Colonial Development and Welfare Grants	27.4	10.5	54.3	18.3
Other External Aid	—	—	—	23.4
Local Revenues	25.6	9.6	—	15.0
Loans	47.0	79.9	45.7	43.3
Total	100.0	100.0	100.0	100.0

1.15 It can be seen that Colonial Development and Welfare grants had a significant place in development programmes during this period. From 1944 to 1968 Fiji received £Stg.9.1 million from this source for capital development projects. This amounted to 25 per cent of Government's total expenditure on capital projects over the period. The major portion of the grant was used for infrastructure development, which absorbed 47 per cent of the total, with economic services taking 29 per cent and social services 24 per cent.

1.16 From the public point of view post-war development Plans have served to focus attention on the economic problems of the country and thus to cultivate a development consciousness. People have become increasingly aware not only of the problems facing the country but also of the magnitude of the task required for their solution. This trend has also been enhanced by a number of reports on the economy such as that of the Burns Commission, the report on the sugar industry and that on the coconut industry. Moreover, with the country's political development, economic problems have stood out more prominently.

1.17 Greater emphasis on planning in the post-war period has coincided with an increasing participation by the Government in the economic life of the country. Within Government, the administrative machinery has had to focus attention on development problems. More particularly, Government has been encouraged to take a longer-term view of the economic life of the country rather than confining itself to the limited vision of annual budgets.

Development Plan V, 1966-70

1.18 Fiji's fifth Development Plan (DPV) was a departure from previous Plans in that it attempted to take a more comprehensive view of the economy and its problems and presented the Plan in an integrated framework. The Plan incorporated the last three years of the 1964-68 Plan.

1.19 The Plan projected Gross Domestic Product to grow at 5.6 per cent per annum over the period from the base year 1965. Taking a 1965 GDP estimate of $121.0 million the plan projection implied a GDP of $158.9 million by 1970.

1.20 Investment was projected to grow at the rate of 7.0 per cent per annum, private consumption at 4.7 per cent per annum and public consumption at 6.0 per cent per annum. The projected rate of growth in investment implied that the ratio of investment to Gross Domestic Product would grow from 17.0 per cent in 1965 to 18.0 per cent in 1970. With population projected to grow at 3.0 per cent a year, the rate of growth in per capita consumption would be 1.7 per cent per annum. The relatively faster growth in public expenditure reflected the important role of the public sector in the Plan effort.

1.21 Exports were projected to grow at 7.8 per cent annually over the Plan period. At their projected rate of growth and on base year 1965, total exports would reach $61.9 million in 1970. Imports were projected to grow at the long-term trend of 8.3 per cent per annum.

1.22 The projected trends in Gross Domestic Product and the demand components over the Plan period are shown in Tables 1.4 and 1.5.

Table 1.4: Development Plan V, Overall Performance

($ million, 1965 prices)

Year	Gross Domestic Product (at factor cost)		Investment		Government Consumption		Personal Consumption		Exports [1]		Imports [1]	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
1965	120.6	121.0	22.8	27.6	15.7	15.7	96.3	95.9	54.5	54.5	63.2	63.2
1966	127.2	122.7	24.4	23.1	16.6	17.0	100.8	92.9	58.8	50.0	68.4	56.0
1967	134.2	137.9	26.1	29.6	17.6	17.8	105.5	96.2	63.3	62.1	74.1	58.6
1968	141.6	147.6	27.8	41.1	18.6	18.1	110.5	99.9	68.2	71.1	80.3	69.2
1969	149.4	149.4	29.9	43.3	19.7	18.9	115.7	103.5	73.5	73.6	87.0	77.0
1970	157.7	156.5	31.9	48.1	20.9	20.2	121.1	108.6	79.2	78.5	94.2	85.8

Note: Plan series are derived from unrevised 1965 base figure; revised series presented in 'Actual' column.

1 — Goods and Services. Imports valued c.i.f. (cost, insurance and freight), exports valued f.o.b. (free on board).

Table 1.5: DPV, Sectoral Development

($ million, 1965 prices)

		1970		Annual Growth Rate	
	1965[1]	Plan[2]	Actual	Plan[3]	Actual[4]
Commodity Production				(%)	(%)
Agriculture, Forestry and Fishing	40.6	52.8	45.5	5.4	2.3
Mining and Quarrying	2.2	3.3	2.0	8.5	—1.9
Manufacturing and Processing	14.9	19.8	19.2	5.9	5.2
Sector Total	57.7	75.9	66.7		
— as proportion of GDP	(47.6%)	(47.9%)	(42.6%)		
Basic Economic Facilities					
Building and Construction	6.5	8.2	11.9	4.8	12.8
Transport and Communications	6.8	9.1	11.9	6.1	11.8
Electricity and Water	1.5	2.5	2.0	10.7	5.9
Sector Total	14.8	19.8	25.8		
— as proportion of GDP	(12.2%)	(12.5%)	(16.5%)		
Services					
Commerce	21.2	26.7	24.1	4.7	2.6
Tourism	2.0	3.3	5.0	10.7	20.2
Government Services	8.5	11.8	11.1	6.8	5.5
Other Services	16.9	20.8	23.8	4.2	7.1
Sector Total	48.6	62.6	64.0		
— as proportion of GDP	(40.2%)	(39.6%)	(40.9%)		
Gross Domestic Product	121.0	158.9	156.5	5.6	5.3

1 — revised data.
2 — based on revised 1965 data, applying growth rates as originally forecast in the Plan.
3 — original Plan target growth rates.
4 — growth between 1965 revised data and 1970 actual.

Overall Performance

1.23 Over the five-year period 1966-70 the average rate of growth is estimated to have been close to 5.3 per cent per annum as compared to the planned rate of 5.6 per cent. It can be said therefore that from the point of view of overall growth the performance of DPV has been close to expectations. Indeed, if one takes the four-year period 1967-70 the real annual rate of growth is likely to be in excess of 6.0 per cent as compared with the planned rate of 5.6 per cent. Over the Plan period the average annual rate of increase of population has been around 2.5 per cent. Thus real income per capita will have been increasing by over 2.8 per cent annually, or 14.8 per cent over the period.

1.24 The pattern of growth of the economy since 1965 can be divided into two distinct phases. The first phase comprised the two years 1965-66, when the economy faced a recession following the sugar boom of 1963-64. Gross Domestic Product in real terms hardly increased over 1965-66. In 1967, however, there was an upturn in economic activity and real GDP rose by over 10 per cent. The strong upward movement has continued in the ensuing three years, although at a rate lower than in 1967.

1.25 The upturn from 1967 and the continued buoyancy in the economy may be attributed to three principal factors :

(i) continued increase in Government expenditure. Government revenue had benefitted substantially from the sugar boom in 1963 and 1964 as well as from tax reforms put into effect in 1965. Because of its strengthened financial position, together with its success in floating local loans and its continued receipts of CD&W grants, Government has been able to maintain rising levels of expenditure since 1966. Thus Government current and capital expenditure increased by over 10 per cent annually during this period. Through its spending Government was able to offset in considerable measure the contractionary effects on the economy emanating from low export sales in the early part of the period;

(ii) expansion in the tourist industry. Though the net contribution of the tourist industry was still relatively small it was certainlv one factor helping to offset the unfavourable trend in merchandise exports. The total number of visitors increased at the rate of over 20 per cent per annum over the years 1960-68. Gross tourist receipts increased from $3.6 million in 1963 to $15.6 million in 1968 and around $21.6 million in 1969;

(iii) expansion in private building construction. The expansion in this sector was tied to a certain extent to expansion in the tourist trade. Four new hotels were constructed in 1967. It is interesting to note, however, that while in 1967 the expansion was chiefly in new commercial buildings, construction in 1968 and 1969 reflected substantial increases in new dwellings.

1.26 The significant feature in the upturn of economic activity from 1967 was that it took place despite the fact that sugar continued to be depressed by very low world prices. Furthermore, the other principal agricultural crops as measured by exports similarly faired poorly. It appears therefore that the economy, which had hitherto depended on external factors of buoyancy in merchandise exports to propel it forward, was able to recover from the recession without this dynamic force. But as noted above the recovery was due to a large extent to continued expansion in Government expenditure made possible by the revenue surpluses collected during the sugar boom.

Sectoral Growth

1.27 Table 1.5 presents GDP growth of the various sectors during DPV in relation to Plan targets.

1.28 The significant features that emerge from the table are :

(i) the slow rate of growth in agricultural production, which was lower than the rate of population growth. This slow rate of growth reflects the limitations on growth in Fiji's staple industries, sugar and copra, and underscores the need for new growth industries;

(ii) the relatively higher rate of expansion in basic economic facilities as compared with Plan targets;

(iii) the higher rate of expansion in private services, which reflects the high rate of growth of the tourist industry.

1.29 The picture of sectoral growth shown in Table 1.5 points up changes in the structure of the economy occurring during the DPV period. Of importance is the decline in the share of commodity production in Gross Domestic Product and the increase in the share of services. This shift to a "service economy" is a natural development as a country progresses. However, it does have an important policy implication in increasing the relative dependence of the economy on external forces. The point emphasises the need for policies to promote greater agricultural and industrial growth. On the other hand, since growth is biased towards the service industries, the scope for expansion in employment opportunities may be considerable.

Trends in Demand

1.30 Table 1.4 shows how available resources have been utilised. The significant features have been the sharp rise in the share of resources devoted to investment and the steady increase in the share of Government consumption. The share of investment in Gross Domestic Product has increased sharply from 23 per cent in 1965 to 30 per cent in 1970 while the maximum share envisaged in the Plan was 18 per cent by 1970. This sharp rise was caused by a substantial increase in public investment which rose by 42 per cent between 1965 and 1968 and even more importantly by a surge in private investment which increased by nearly 55 per cent over this period. The major part of private investment has been directed to manufacturing, commerce and the service sector, principally tourism. It is also significant to note that the major portion of private investment can be attributed to operations of foreign firms. This is indicative of the important role of private foreign capital and know-how in the country's development.

1.31 In contrast to the rise in investment and Government consumption has been the much slower growth in personal consumption. When related to the rate of population growth it appears that personal consumption per capita has not improved over the Plan period.

1.32 While it is a desirable objective of development policies to accelerate the rate of investment it is equally important that a modest rise in level of personal consumption be maintained. As a minimum it should be allowed to increase at the rate of population increase merely to maintain the existing level of per capita consumption. The aim of policy, however, should be to exceed the rate of population increase to achieve a rise in standard of living.

Foreign Trade

1.33 Changes in the pattern of Fiji's trade and balance of payments reflect the economic transition which the country is undergoing. The economy is still as fundamentally oriented to external trade now as it was at the outset of DPV, but the character of this orientation has changed. The growth sectors are not the traditional agricultural sectors but are now the import substituting, re-export, small export sectors and the tourist sector.

1.34 The most noticeable features in the evolution of domestic exports over DPV were the continued dominance of sugar exports and the growth of small exports. The latter, exports from Fiji's secondary and processing industries, show a significant upswing compared with the slow rates of growth in Fiji's other traditional foreign exchange earners, copra and gold.

1.35 Fiji's increasingly important role as a trade and communications staging post in the South Pacific is reflected in the strong rise in re-exports.

1.36 The changing composition of imports points again to the transition in Fiji's economy. The categories of imports showing the highest rates of increase are capital equipment, manufactured goods and 'duty free' goods and are a reflection of the buoyancy of tourist and secondary industries. Food imports, while increasing, have accounted for a falling proportion of total imports.

1.37 While in the early 1960s Fiji's merchandise trade deficit averaged $4-5 million per year, this level changed rapidly after 1966, the deficit reaching about $40 million in 1970. The rapid upswing of the economy was reflected in a sharp demand for imports, both capital and consumer goods, while exports increased only moderately. However, this visible trade deficit is now largely offset in the balance of payments by increasing tourist industry earnings.

1.38 The volume of investment income paid abroad has also increased over DPV. This is a direct function of overseas enterprise activity in Fiji and is at present more than matched by the annual inflow of foreign private capital. Other transfer items tend to be in balance.

1.39 In other words, there is a balance, but a new kind of balance in Fiji's external payments position. A decade ago, Fiji exchanged sugar, copra and gold for food and manufactured consumer goods. If the staple exports fared badly, there was a serious deterioration in the balance of payments. Now Fiji produces a relatively higher proportion of its food needs as well as increasing amounts of manufactured goods — a real gain — and has some new small exports. Increased imports of manufactured goods, including large amounts of capital goods, are partially offset by the inflow of exchange from tourism.

Population and Employment

1.40 Over the DPV period Fiji's population has increased from 466,000 to about 526,000, i.e. at an annual rate of 2.5 per cent, as compared with the target rate of 2.3 per cent in DPVI. This is a significant fall from the high rate of 3.3 per cent attained during the inter-censal period 1956-66.

1.41 The total labour force has grown from about 126,000 to an estimated 150,000 over the 1966-70 period. To the 23,700 new entrants seeking work must be added some 5,200 recorded as unemployed by the 1966 census. Although there is no reliable estimate of the number currently unemployed, it seems highly unlikely that the growth of the economy during the Plan period has been sufficient to create the number of new employment opportunities required. The continued rapid growth of the labour force in the next few years makes it clear that the country faces a prospective deterioration in the employment situation which now demands urgent consideration.

Income Distribution

1.42 Income distribution is a factor of considerable importance in planning for development. Not only is equitable distribution of income a normal objective of a development programme, but a radically inequitable income distribution may of itself be a deterrent to sound development.

1.43 Income distribution may be assessed on the basis of comparisons between urban and rural workers, different economic sectors, or other groupings. A rough indication of the rural-urban income relationship is a comparison of the net output per worker in agriculture and a predominantly urban activity such as manufacturing. It is estimated that in 1966 average wages in manufacturing were almost twice as high as average agricultural income. Although this is merely a comparison of two sectors it is nevertheless sufficiently indicative of a wide disparity in rural-urban incomes which requires policy action.

1.44 Because of its obvious social and political implications in Fiji, income distribution by racial group is also a factor deserving of analysis. Reliable data on relative income by racial groups are not readily available. However, surveys made of income tax returns in two recent years give a strong indication of disparity among the four principal groups, with Fijians and Indians falling below the national average (about 60 per cent and 80 per cent respectively) and Chinese and Europeans above the average (115 per cent and 140 per cent respectively). These data, tentative as they are, give sufficient indication of an area requiring policy action. The overall disparities are undoubtedly greater than shown by the income tax returns.

Problems of Future Growth

1.45 From the foregoing review of Fiji's economic development since the war and the performance of Development Plan V a number of problems that have important implications for future growth have emerged. Perhaps foremost is the need to find new growth industries in view of the limited possibilities for expansion in sugar.

1.46 Sugar has been the main source of growth in the Fiji economy over the past ten to fifteen years. It was the dynamic force that propelled the economy forward. The industry cannot be expected to exert the same upward impetus to the economy over the next several years. The International Sugar Agreement (ISA) places a restriction on future expansion of the industry both in terms of price and output. Under the present ISA, Fiji has an overall quota of 336,000 tons per year. It will only be possible to exceed this quota if Fiji should benefit from a share in the Hardship Fund.[1] In bumper years therefore Fiji might benefit from the fund to the extent of, say, 15,000 tons.

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[1] The Fund represents 150,000 tons of sugar available at the discretion of the council to meet special cases of hardship among developing countries which have sugar for export over and above their basic export tonnage.

1.47 The maximum export quota for Fiji, therefore, is unlikely to exceed 350,000 tons. Fiji is, in fact, presently capable of producing well in excess of this limit. Mill capacity is around 400,000 tons and with favourable weather conditions production can reach this level as witnessed in 1968 when output reached a record of 394,000 tons. Production in the previous five years averaged around 300,000 tons. Thus the present quota would approximate Fiji's likely average output in years of fair weather conditions.

1.48 The implication of this for the Fiji economy is that sugar has now lost its dynamism of the past ten to fifteen years. It is unlikely to achieve in future the same rate of expansion in output and value achieved over these years.

1.49 The other traditional export industries — principally coconuts and gold — are not going to assume the dynamic role in the economy being relinquished by sugar. The maintenance or restoration of a modest growth in output from these industries is about as much as can be hoped for.

1.50 Thus, the main industries which have been relied upon in the past to generate growth throughout the economy as a whole are not going to sustain growth in the future. The country is entering a difficult transitional period in which new industries and activities must be found which can take the place of older activities.

1.51 High priority now has to be given to new export industries and activities in order both to generate more domestic incomes directly and to try to secure a growing volume of foreign exchange. Moreover, import-substituting production has to assume a much more dynamic role.

1.52 Tourism is the largest and most dynamic of the new export industries and it will therefore continue to receive emphasis. Because its present contribution to Gross Domestic Product is still relatively small, however, the industry cannot be expected in the foreseeable future to provide the main impulse to growth throughout the economy. It will need to be reinforced by growth in manufacturing and agriculture. Indeed because of the relatively greater size of the latter two sectors the pace of the economy will continue to be determined by growth of these two sectors in the near future. It is therefore a crucial matter of policy that Fiji promote greater growth in agriculture and industry as well as tourism.

The Problem of Unemployment

1.53 The need to give high priority to the expansion of agriculture, industry and tourism, and more especially agriculture, is reinforced by the prospective long-term deterioration in the employment situation. The labour force is presently increasing at a rate of more than four per cent per annum. In absolute terms this means a requirement for over 6,000 additional jobs a year. Indications are that this number of job opportunities have not been forthcoming in recent years.

1.54 The report of the 1966 Census of Population in discussing the employment problem in cane farming highlights the problem as follows: "The number of Indian males likely to retire from cane farming within the next ten years is in the vicinity of 1,800 and their replacement will take up less than 7.0 per cent of the numbers in need of employment." Discussing overall employment opportunities the report stated that "Of the total male population the total expected retirements over the next ten years (those aged 55-64 years) numbered 8,219. Their replacement in sharp contrast would be those now in the age group 5-14 years who numbered over 70,000, more than eight times the number of those who would be retiring!"

1.55 In addition to the problems posed above a number of policy issues have emerged from the review of the performance of DPV which will need to be taken into account in the framework of Development Plan VI :

(i) due in part to the very rapid development of tourism, the services sector of the economy has been growing much more rapidly than the basic productive sectors. This raises the problem of a possible imbalance in the economy and suggests the need for particular emphasis on the promotion of agriculture and manufacturing, especially processing of agricultural products and the production of goods for import substitution;

(ii) the performance of the economy during DPVI highlights the importance of private investment and more particularly, investment arising from foreign sources. It seems clear that continued buoyancy of the economy will depend in substantial part upon the maintenance of a climate favourable to a continuing inflow of foreign capital investment;

(iii) one of the outstanding features of the performance of the economy during DPV has been the fact that private consumption has accounted for a falling proportion of Gross Domestic Product. Targets for DPVI take into account the practical limits of restraint on the growth of private consumption. This emphasises the need for very tight control of Government consumption;

(iv) the brief appraisal of the distribution of income in the economy indicates wide inequality. Attempts to bridge these gaps must be a major consideration during the new Plan period.

ANNEX

REVIEW OF PUBLIC SECTOR EXPENDITURE

In relation to public investment expenditure levels over the period 1958-65, DPV, with its proposed $40 million outlay, was an ambitious programme.

1.57 In overall terms, final actual expenditures during the Plan period are expected to total about $38 million, representing an apparent shortfall against planned expenditure of only some five per cent. Real under-expenditure in planned projects and programmes has in fact been greater since the original plan was written in 1965 constant prices and did not include a number of items, such as provisions for financial assistance to the Emperor Gold Mining Company.

1.58 The most noticeable annual shortfall in expenditure was in 1967, a result of Government's deliberate policy of financial restraint. Additional reasons for shortfalls have applied in all years, the principal ones being :

- (i) lack of firm conception in departments of particulars of projects, although budget allocation had been made;
- (ii) design delays;
- (iii) inadequate costing information;
- (iv) sites not agreed or acquired;
- (v) delays in the administration of CD&W aided schemes.

1.59 Nevertheless the heightened level of public investment and concurrent expansion of public recurrent services have played a significant role in generating economic growth and, in particular, in assisting the economy to recover from the 1965-66 period of recession.

1.60 Actual expenditure by functional purpose shows a considerable divergence from the original DPV programme. Capital expenditure in Administrative Services has been lower than planned, and expenditure in Social Services has consistently fallen short of original targets. Increased water supply and urban housing assistance programmes have caused the Community Services sector to show higher expenditure than planned. In Economic Services, higher expenditures in 1969-70 may partly offset shortfalls in earlier years. Expenditure in the Infrastructure sector has, broadly, been held to the planned orders of magnitude.

1.61 Significant in the financing of DPV is the fact that Government has now begun to have considerable recourse to foreign loan resources. This not only reflects the size of the DPV programme relative to previous public capital programmes but also shows that the economy has reached a stage in which it has become necessary for Government to initiate a borrowing programme of considerable magnitude, which, for some years to come, will increase faster than GDP.

1.62 Tax revenue in DPV has grown considerably faster than expected. This is for two main reasons :

- (i) 1965-66 were years of depressed economic activity and actual revenue was below the trend growth level at the start of the Plan;
- (ii) the present economic boom, with fast increasing imports and a high level of economic activity, has boosted the end-of-Plan figures.

1.63 These increases in revenue have permitted a considerable expansion of public recurrent expenditure (which has grown by some 10 per cent per annum over the period). Total emoluments have been increasing by some 12 per cent per annum, the debt servicing commitment by 11 per cent, and transfers to households, institutions and semi-public bodies by 15 per cent per annum.

1.64 Rates of increase of this order in recurrent expenditure were not experienced before the 1964 economic boom period. A period of financial stringency lasting from the late 1950s to the early 1960s was relieved by the large recurrent surpluses of 1963-64 when a new and higher level of revenue was reached. This permitted, and was followed by, a "take-off" in expenditure.

1.65 This period happens to coincide with DPV, but, more significantly, it represents a change in Government's attitudes and policies which has been executed in real terms. Through DPV Government has taken on a socially and economically more advanced role. First, Government has strongly committed itself to the developmental task, and to providing a high level of infrastructural services and an extensive range of economic-biased services. Second, Government has increasingly committed itself to provide the public with a higher level of social services. In this way, the character of public expenditure may be said to have undergone a significant transition.

PART TWO

DEVELOPMENT OBJECTIVES AND POLICIES

CHAPTER 2

LONG-TERM OBJECTIVES

Development Plan V had as its overall objective to open up new possibilities for growth in the Fiji economy. It especially emphasised plans to survey development possibilities in the field of forestry, and to give consideration to the better exploitation of the marine resources of the country. It looked toward more rapid growth in tourism and a steady development in small industries, mostly for import substitution, as mainstays of economic progress during the period. In agriculture, special emphasis was to be given to research designed to introduce new products into the agricultural economy, and to major land settlement schemes.

2.2 As Development Plan V is viewed from a time very near to the end of the plan period, it is of course not too surprising to find that the economic changes which have occurred since 1965 have not been precisely as planned at that time. The overall growth experienced by the Fiji economy during the Plan period has been very close to the target set. The achievement of this overall growth, however, has reflected a more rapid increase in the tourism and services sectors, both Government and private, than envisaged by the Plan. Agriculture, on the other hand, has achieved a rate of growth only half that which was planned. It is especially noteworthy that several of the land development schemes implemented during the Plan period have been only partly successful, largely because of inadequate detailed planning and perhaps some under-estimation of the degree of farmer training required in order to make them successful.

2.3 On the other hand, real progress was made during DPV in the resources surveys that are a necessary pre-requisite for development projects to be implemented at a later time. The basic transport survey was completed during the Plan period and certain recommendations have already been implemented. A comprehensive survey of the potential forestry resources will be completed by mid-1971, and should result in an important commitment of development resources to this sector during DPVI. The last three years of DPV have seen a very high level of activity in mineral exploration, but except for a project to extract bauxite in Vanua Levu there are no firm indications of any new exploitable mineral resources, although prospects are still considered quite hopeful. A pilot project of considerable importance to agriculture, namely, the growing of rice under irrigation and double cropping will be completed in 1971, but has already given strong indications that a major new effort in this field will be productive. Other resource surveys such as the investigation of hydro-electric power possibilities are already in the pre-planning stage and their impact upon investment may be expected to be felt before the end of DPVI.

2.4 The formulation of Development Plan VI has been undertaken in the light of the knowledge that a number of problems related to a successful development effort remain to be solved. Perhaps the most persistent of these is the continuing lag in agricultural development generally. Linked with the problems of agricultural development is the persistent drift of the rural population to the towns. The twin problems of maintaining and increasing agricultural output with a loss of population and, on the other hand, finding employment and furnishing such amenities as housing for the growing population of the towns are in a sense parts of the same problem. Another manifestation of this situation is the growing disparity of income between the rural and urban populations. There is every indication that this disparity actually increased during DPV. In Fiji the rural-urban income disparity has a special significance because of its relationship to disparities of income among the main ethnic groups, which raises potential social and political problems in addition to the basic economic issue.

2.5 While the economy was essentially prosperous near the end of DPV, a fact that should be specially noted was the sharply rising trade deficit, which reached almost $40 million in 1970. This trade deficit is not immediately critical, since very rapid increases in gross receipts from tourism and a continued heavy capital inflow, mostly for investment by private foreign sources, have resulted in a continuing favourable balance of payments and foreign exchange position. However, the trade deficit is a reminder of a potential weakness of the Fiji economy. It would not be wise to base future development plans on the expectation that tourist receipts and the inflow of investment funds will continue indefinitely to show the very large year-to-year increases that have taken place since 1967.

2.6 One of the bright spots in the development situation in recent years has been the steady decline in the birth rate. The deceleration in the rate of population growth is of very great significance for economic development. It means a smaller claim on the resources of the economy to provide the new population with education and other social services, and it thus basically reinforces the ability of the society to save for investment. Furthermore, as the lower birth rate begins to be reflected in the lower rate at which people enter the labour force, the number of job opportunities needed to avoid a rise in unemployment will be reduced.

Broad Objectives of DPVI

2.7 A development plan must be much more than a list of projects for investment, public and private. Its basic objectives must reach deeper than mere efforts to promote the maximum increase in national income. It must first of all address itself to the fact that development encompasses not only growth in income but progress in social development. The Plan must also view the development of Fiji in the context of its relationship to other countries both in the South Pacific and the rest of the world. It must take cognisance of probable developments of a political nature during the Plan period and beyond.

2.8 Against this background, the main goals which have guided the formulation of DPVI may be briefly stated. Optimum use of available resources, physical and human, is obviously the essence of any successful development process. As already indicated, several of the resource surveys now completed will serve as a foundation for DPVI efforts. Two general facts about resources in Fiji stand out:

(i) agriculture, which is still the predominant economic activity, presents the greatest problems for resource development. This is partly because in Fiji, as in almost any country of the world, the institutional factors that need to be mobilised and transformed are difficult to change. Nevertheless, the decision to make far greater efforts in the field of agriculture during DPVI than ever before was inevitable;

(ii) the development of human resources must again be a paramount objective of DPVI. In the past a rapidly expanding population and inadequate programmes for the general education of this population and particularly for specialised training in the technical field, have left Fiji with manpower resource problems of more than average difficulty.

2.9 The moderation of increasing income disparities within the Fiji society is perhaps the most important single objective of DPVI. It is profoundly realised that a development programme which simply increases national income by increasing the incomes of those who are already better off will create still more difficult problems for development in the future. The effort to attenuate income disparities will obviously be bound up very closely with efforts to promote more rapid development in the rural sector. Such development is a requirement for a number of reasons, of which income disparity is only one. Just as we need to create growth in the urban sector in order to improve the market for agricultural products, growing prosperity in the rural sector is a requirement for creating better markets for the developing manufacturing industries. The ideal combination will be achieved in so far as growth takes the form of an expansion of agricultural products which then furnish the raw materials for building up a good processing industry in the urban sector.

2.10 The population pattern requires that growth be sought not only for income improvement, but for employment. During the DPVI period, and for several years beyond that, the number of persons reaching working age will be especially large relative to the level of new employment opportunities generated by the economy. Avoidance of a serious rise in unemployment will require concentrated attention on mounting development programmes creating the maximum number of new jobs.

2.11 Development Plan VI seeks to address itself to two problems which are peculiar to Fiji: the need to build a multiracial society and the need for integration of a country which is rather widely dispersed geographically. The pursuit of these objectives will of course in part lead along the same paths as efforts to remedy income disparities and the rural-urban imbalance. In addition, special efforts will need to be made to bring subsistence farming into the cash economy and to improve transportation and communication between the centres and the outlying islands.

2.12 A number of the broad objectives just described merge into an attack on the problems of urbanisation, which are so common to the larger countries. The drift of population to the town reflects the simple fact that many people can earn more income in the towns. It is also inevitable that a population which is growing in sophistication will be drawn to the towns by the greater availability there of the various social amenities. The Plan envisages a two-pronged attack on the problems incident to the rural-urban drift:

(i) by giving maximum support to improved production and income in the rural sector, it is intended to reduce the incentives now attracting people to the towns. In this connection, it is realised that rural areas should have not only better economic opportunities, but better social amenities in the fields of education, recreation and allied areas;

(ii) to care adequately for the growing urban populations it is necessary, first of all, to achieve rates of growth in the industrial and services sectors that will provide an adequate number of job opportunities. It is further necessary to undertake special training programmes to adapt this population to its new pursuits. Finally, it is necessary to adopt programmes that will stimulate the construction of housing and other amenities needed by the urban population. The Plan will give special attention to programmes designed to develop housing for low income groups.

2.13 A necessary objective for DPVI has been to seek to shape the development of Fiji in its regional context. Because of the geographic dispersion of the countries of the South Pacific, because of the smallness of the populations involved in most of the area, and because of the relative stages of development of the several territories, Fiji has and will continue to have a special position of interdependence with these areas. For example, support of the development plans of such regional institutions as Fiji Airways, the South Pacific Commission, the University of the South Pacific, and the Pacific Islands Producers' Association must be programmed not only for the progress of Fiji itself but in relationship to the development needs of the whole area. Among the factors to be taken into consideration improvement of transport and communications is of obvious importance.

2.14 The final and perhaps overriding objective of all successful development plans is to seek to achieve progress within the framework of reasonable stability — economic, social and political. One of the paradoxes of the development effort in this regard is that to a certain degree development itself promotes instability. This is an inevitable consequence of the fact that development means change and change may affect existing stabilities. The task is therefore one of achieving a safe balance between these opposing forces.

CHAPTER 3

TARGETS FOR ECONOMIC DEVELOPMENT, 1971-75[1]

Development Plan VI fixes a target for the overall growth of the Fiji economy of an average annual rise of 6.7 per cent in Gross Domestic Product (GDP). The achievement of this target will mean an increase in GDP from its estimated level of $178 million in 1970 to $246 million in 1975 (at 1970 prices). Naturally, this growth will not occur evenly in all sectors of the economy. Table 3.1 indicates the growth expected in each of the sectors during DPVI and compares these rates of growth with the rates of increase achieved during DPV.

Table 3.1 : Projected Growth, by Economic Sector, DPVI

($ million, 1970 prices)

	Gross Domestic Product		Annual Growth Rate	
	1970	1975	DPVI	DPV[1]
			(%)	(%)
Agriculture, Forestry and Fishing	48.4	57.7	3.5	2.3
— cash sector	(28.8)	(35.9)	(4.5)	(1.5)
— rural households	(19.6)	(21.8)	(2.1)	(3.5)
Mining and Quarrying	2.5	2.8	2.4	-1.9
Manufacturing and Processing	19.3	24.0	4.5	5.2
Building and Construction	15.0	23.1	9.0	12.8
Electricity and Water	2.0	2.9	8.0	5.9
Transport and Communication	15.0	21.7	7.7	11.8
Commerce	28.0	39.1	6.9	2.6
Tourism	6.0	15.0	20.2	20.2
Government Services	12.9	19.3	8.4	5.5
Other Services	28.5	40.0	7.0	7.1
Gross Domestic Product (at factor cost)	177.6	245.6	6.7	5.3

1 — 1965 prices.

3.2 The expected rate of growth in agriculture, forestry and fishing of 3.5 per cent per annum is a rather ambitious target in view of the fact that the actual rate of growth achieved in DPV was only 2.3 per cent. It may be noted, however, that the projection is considerably more modest than the 5.4 per cent originally targetted for DPV. The programme for agricultural development during the next five years recognises that little new growth can be expected in the production of sugar cane. In order to achieve an overall sectoral growth rate of 3.5 per cent, therefore, a substantially higher rate will have to be achieved in the non-sugar portions of the agricultural sector. The attainment of this goal will require greatly intensified efforts to modernise farming methods through development of new crops and improved farmer education. More particularly, maximum attention will have to be given to improvements in agricultural marketing.

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[1] Detailed statistical data serving as a background to this chapter are contained in Appendix C.

3.3 Considerable expansion in fisheries is expected from development projects already under way or in an advanced planning stage. Forestry production will also grow as an expanded programme of extraction from indigenous forests gets under way and as the sawmill industry is rationalised. Larger increases in forestry output which may result from new plantation programmes under consideration will of course be felt further in the future.[1]

3.4 Mining and quarrying is expected to grow at a rate below that of the economy as a whole. Gold output will at best remain stable, reflecting the unpromising world market price outlook. On the other hand, extraction of bauxite will expand during the period, and greatly accelerated road and building construction will stimulate an increase in the output of quarries. The Plan has not been based on expectations of broad new developments which may result from the high level of mineral exploration activity going on in the last several years, but of course it is possible that some beneficial effects of this exploration may be felt near the end of the Plan period.

3.5 The rate of growth projected for manufacturing and processing (4.5 per cent) is actually below the rate achieved during DPV. Here again the changing position of sugar should be noted. A large proportion of the increase in manufacturing in 1966-70 reflected growth in sugar cane processing. During DPVI, on the other hand, little if any increase in sugar extraction is expected. Other types of manufacturing activity are expected to grow at approximately eight per cent per annum during the Plan period, as small new industries continue to develop.

3.6 Not surprisingly, building and construction is expected to grow at an annual rate of nine per cent, higher than any other sector except tourism. This rapid growth rate reflects the combined impact of a heavy public expenditure programme and active demand from the private sector for new construction for industry and commerce, for housing, and for tourism. Electricity and water services will have to grow at somewhat faster rates than the economy as a whole, and faster than during DPV. Transport and communications and commerce (primarily wholesale and retail trade) will grow at approximately the same rate as the economy as a whole.

3.7 Tourism has been projected to grow at a relatively high rate (20.2 per cent) but substantially slower over the period as a whole than the exceptionally high rates of the period 1967-70. In fact on economic grounds a continuation of this growth might present some problems. If facilities to service tourism at the projected rate can, in fact, successfully be created, and if physical planning to ensure the orderly development of this industry can be implemented, then the objectives of DPVI and of the Fiji economy generally will be well served.

3.8 Government services will necessarily grow at a somewhat more rapid rate than the economy as a whole. This reflects the constant pressure for a higher level of Government services to the population, a development which is in itself a desirable sign of progress. In certain areas, such as education, an expansion in Government expenditure will in part simply reflect a transfer of this burden from private to public hands.

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[1] The treatment of sectoral developments in this Chapter is in summary form. For a fuller discussion of each sector see Part Three.

3.9 Government policies and programmes designed to assist in the achievement of the sectoral targets are discussed in Part Three.

Structural Changes in the Economy

3.10 Table 3.2 shows the changes in the relative importance of the several sectors of the economy that are expected to take place during the Plan period. The agricultural sector, in spite of the concentration of the development programme in the rural areas, will experience some further decline in its relative contribution to GDP. The same will be true of both mining and manufacturing; the relative GDP contribution of the commodity production sectors as a whole will decline from 39.5 per cent in 1970 to 34.4 per cent in 1975.

Table 3.2 : Gross Domestic Product, Sectoral Shares, 1970-75

(per cent shares, 1970 prices)

Commodity Production	1970	1975
Agriculture, Forestry and Fishing	27.2	23.5
Mining and Quarrying	1.4	1.1
Manufacturing and Processing	10.9	9.8
	39.5	34.4
Basic Economic Facilities		
Building and Construction	8.4	9.4
Transport and Communications	8.4	8.8
Electricity and Water	1.1	1.2
	18.0	19.4
Services		
Commerce	15.8	15.9
Tourism	3.4	6.1
Government Services	7.3	7.9
Other Services	16.0	16.3
	42.5	46.2
Gross Domestic Product (at factor cost)	100.0	100.0

3.11 The obverse of this is the relatively faster growth of both the basic economic facilities and the services sectors of the economy. As the Fiji economy becomes more urbanised and more sophisticated, it is inevitable that these sectors will grow faster. As may be seen in the table, the services sector is expected to contribute 46.2 per cent of GDP by 1975, as against 42.5 per cent at the beginning of the Plan. The most important element in this structural change is the growing importance of tourism. Even though it is as yet a fairly small sector in the total economy, its contribution to GDP will more than double in absolute amount during the Plan period ($6.0 million to $15.0 million) and will almost double as a percentage of the total (3.4 per cent to 6.1 per cent).

3.12 As already indicated in Table 3.1, the total output of the economy is expected to grow at the relatively rapid rate of 6.7 per cent per annum over the next five years. Since population growth is expected to be about 2.3 per cent per year, the actual improvement in per caput GDP will be around 4.4 per cent annually.

3.13 It cannot of course be inferred that the economy's growth is directly translated into an equivalent rise in the standard of living of the entire population. Quite apart from the question as to how the increased income is shared among the people in the society, it is of interest to note the utilisation of national income as between investment and consumption, and between consumption in the Government and private sectors. Table 3.3 sets forth these data for the years 1970 and 1975.

Table 3.3 : Gross Domestic Product and National Income, 1970 and 1975.

($ million, 1970 prices)

	1970		1975		Growth Rate 1970-75
	Value	Share of GDP (%)	Value	Share of GDP (%)	(% p.a.)
Private Consumption	122.9	63.0	163.4	59.8	5.9
Government Consumption	23.6	12.1	36.3	13.3	9.0
Gross Fixed Capital Formation	55.2	28.3	82.6	30.2	8.2
— Private	(40.4)	(20.7)	(58.5)	(21.4)	
— Public	(14.8)	(7.6)	(24.1)	(8.8)	
Change in Stocks	+1.9	1.0	+2.0	0.7	
Net Trade[1]	—8.8	—4.5	—11.1	—4.0	4.8
Gross Domestic Product (at market prices)	194.8	100.0	273.2	100.0	7.0
Less Net Income paid abroad	—7.1		—11.1		9.3
Gross National Product (at market prices)	187.7		262.1		6.9
Less Indirect Taxes *Plus* Subsidies	—17.2		—27.6		9.9
Gross National Product (at factor cost)	170.5		234.5		6.6
Less Capital Consumption	—11.8		—18.4		9.2
National Income	158.7		216.1		6.4

Note : Totals may not add due to rounding.

1 — Goods and Services

3.14 As can be seen from the table, the Fiji economy in the next five years is expected to show a phenomenon that is usual for rapidly growing economies — namely, both total investment and Government consumption will grow faster than Gross Domestic Product. This results from a deliberate effort to increase investment to achieve progress, and the necessity to expand the level of Government services. Since these two categories of income utilisation will grow annually at 8.2 per cent and 9.0 per cent, and the proportion of income resources available from abroad (net imports) shows little change, the amount of income devoted to private consumption must grow at a rate slower than the economy as a whole. Private consumption is therefore expected to grow at an annual rate of 5.9 per cent as against the GDP growth rate of 6.7 per cent. On a per caput basis consumption will be increasing at about 3.6 per cent per year during the Plan period.

3.15 A notable feature of the development of the economy during DPV was the very slow growth in private consumption especially given the frequent necessity in both developed and developing countries to restrain consumption in order to devote an adequate share of national income to investment. However, there is an optimum balance between investment and consumption for an economy; consumption remains both the end-purpose of economic development and a necessary demand component in the effective utilisation of existing capacity. It has, thus, not been felt desirable or economically appropriate to continue to hold private consumption to such a low rate of growth during DPVI. In social terms, the minimum tolerable rate of growth in private consumption is significantly affected by the extent to which development policies can promote a more equitable distribution of income as among individuals and sectors of the community. It is expected that, among other things, the heavy emphasis upon agriculture and appropriate alterations in the tax system will mitigate the present trend towards widening income disparities within Fiji.

3.16 As can be seen from Table 3.3, National Income during the Plan period is expected to grow from $158.7 million in 1970 to $216.1 million in 1975, which represents an average annual growth rate of 6.4 per cent. The fact that National Income will grow at a somewhat lower rate than Gross Domestic Product reflects the relatively rapid rise in two items which must be subtracted from GDP to yield National Income. The first of these is net income paid abroad, representing the increasing transfer to foreign investors of the income deriving from their capital investments in Fiji, which is expected to grow at 9.3 per cent per annum over the Plan period to reach a level of $11.1 million in 1975. The other deduction from GDP that is relevant here is the allowance for capital consumption — that is, the actual wearing out of building, machinery and other capital goods in the production process. This allowance will grow from $11.8 million in 1970 to $18.4 million in 1975, or at a rate of 9.2 per cent per annum, which in turn reflects the rapidly increasing stock of capital goods being put in place in the economic development process. The residual figure ($216.1 million in 1975) therefore represents the sum total of the value of goods and services which are available for consumption or for additional investment.

3.17 The structure of Fiji's economy during the Plan period will reflect an increasing significance of the foreign trade sector. Table 3.4 shows in broad terms the changing proportions since 1965, and the changes expected to take place by 1975.

Table 3.4: Foreign Trade in the Fiji Economy, 1965-75

($ million, current prices)

	1965	1970	1975[1]
Exports, Goods and Services	55.9	89.9	159.5
Imports, Goods and Services	69.9	105.8	181.7
Net Trade, Goods and Services	–14.0	–15.9	–22.2
Commodity Trade Balance[2]	–19.3	–39.6	–99.3
Total Trade[3]	125.8	195.7	341.2
GDP (at factor cost)	120.6	177.6	245.6
Total Trade as % of GDP	104%	110%	139%

1 — 1970 prices. 2 — imports valued c.i.f. and exports f.o.b.
3 — total exports and imports of goods and services.

3.18 As shown in the table, the combined total of exports and imports of all goods and services in 1965 was slightly more than Gross Domestic Product. As compared with most economies of the world, this relationship confirmed the high degree to which the Fiji economy already was dependent upon the foreign trade sector at that time. By 1970 this dependence has been only moderately intensified, total trade exceeding GDP by about 10 per cent, as against four per cent five years earlier. By 1975, as will be seen from the table, the relative importance of trade in the economy will have been sharply increased, with total imports and exports of goods and services expected to exceed GDP by almost 40 per cent.

3.19 The increasing dominance of the foreign trade sector in the structure of the economy during the Plan period is a very significant aspect of the structural change that will be taking place during the next five years. Of equal or greater significance is the change in the composition of foreign trade itself. The indicated deficit in commodity imports over commodity exports, shown in the table at just under $40 million in 1970, is expected to reach almost $100 million in 1975. This sharply rising commodity trade deficit reflects the greatly increased demand for imports of goods that will result from the implementation of the development programme. The large volume of investment required for DPVI will of course necessitate very large imports of capital goods, construction material and equipment of all kinds. Moreover, rising National Income will enable the Fiji population to expand its purchases of all sorts of commodities, many of which will be manufactured goods available only from foreign sources. Exports of commodities, on the other hand, will grow only modestly during DPVI. This is due partly, as indicated earlier, to the fact that the principal export commodity — sugar — cannot be expected to show much growth during the Plan period.

3.20 The expected increase in the current deficit of goods *and* services during the next five years is much more modest rising from about $16 million in 1970 to about $22 million in 1975. This reflects a very significant shift in the character of foreign trade; namely, the increasing dominance of receipts from tourism. Gross foreign exchange earnings from tourism are expected to rise from about $27 million in 1970 to more than $82 million in 1975, by which date tourist receipts will account for more than half of gross receipts from all goods and services

3.21 Net foreign exchange earnings from tourism are significantly smaller than gross receipts. There is a large 'leakage' because of the heavy import requirements for tourism, both in the form of 'duty-free' goods that tourists buy in large quantities, and in the form of goods and materials required in the construction and equipping of hotels and other places of service to tourists. Nevertheless, the large increase in net tourist receipts during the next five years will play an important part in giving the economy the means to import the large amounts of capital and other goods necessary for the development effort.

3.22 The heavy dependence upon tourism receipts for the preservation of a sound foreign exchange position poses a potential problem, in that developments both inside and outside of Fiji could in a fairly short period change the flow of tourists. It has to be recognised that tourism, which is perhaps the fastest growing single economic sector in a great many places in the world, and thus offers tremendous possibilities for rapid economic development in Fiji, also carries with it certain dangers of abrupt changes in pattern.

3.23 It is quite clear, therefore, that the implementation of DPVI will require a very close watch to be kept upon the balance of payments situation as it develops. Every effort must be made to promote the expansion of new exports, both in the industrial and agricultural fields. It may very well be that it will become necessary at some time during the Plan period to alter the tariff structure for the specific purpose of reducing the importation of consumer goods, particularly in the luxury category. And great care must be taken to maintain conditions conducive to the continued growth of tourism, which will play such an important part in maintaining a sound balance of payments structure during the Plan period.

Investment Targets

3.24 It is estimated that the economic growth envisaged during the Plan period will require total gross investment of about $364 million (as compared with $216 million in DPV). Of this amount, the public expenditure programme of the Central Government is planned to reach about $75 million, or 20 per cent of the total. Local Government bodies are expected to invest about $25 million. Private investment will therefore be expected to provide the remainder of around $264 million or 72 per cent of the total.

3.25 It is not possible to determine with any degree of exactitude the required level of investment in each of the several sectors of the economy. Government investment in the agricultural sector will be heavy, and significant private investment there may also be expected under the stimulus of Government assistance programmes. Additional amounts of investment in the industrial sector, in transportation, and in trade will reflect the need in these areas to replace buildings and plant and equipment that are wearing out, and to expand productive capacity to fill the needs of a growing economy. The recent acceleration in residential construction is expected to continue as the population grows in size, moves to or near the urban centres, and implements its desire for better housing as personal incomes increase. The expected continuing expansion in tourism will require heavy investment not only for hotels and similar accommodation, but for expansion of the other services (e.g. transport and recreation) that tourists require.

3.26 With regard to private investment, the function of the Plan is to orient Government policies toward the maintenance of a favourable climate for investment. Beyond this, the Government will seek to influence private investment patterns in ways that contribute most to the achievement of Plan objectives. The various incentives for investment in desired sectors are being reviewed with the purpose of making them even more effective than in the past. In this connection, it is realised that a very large portion of private investment will come from foreign sources, and it is therefore of greatest importance that Fiji retain

Table 3.5 : Public Investment Programme 1

($ thousand)

	DPVI (Planned) 2		DPV (Actual) 3	
	Amount	% Share	Amount	% Share
Administration	4,151	5.5	3,783	9.8
Social Services				
Education	7,968		3,159	
Medical	9,095		3,036	
Other Social Services	851		840	
Total, Social Services	17,914	23.9	7,035	18.2
Community Services				
Water and Sewerage	5,580		3,254	
Housing	1,800		1,858	
Rural Development	1,000		16	
Total, Community Services	8,380	11.2	5,128	13.2
Economic Services				
Agriculture, Forestry and Fishing	9,204		6,483	
Geology, Lands and Mines	1,679		788	
Industrial Promotion and Assistance to Cooperatives	2,206		2,291	
Tourism	900		172	
Total, Economic Services	13,989	18.6	9,734	25.2
Infrastructure				
Roads and Public Works	18,871		7,455	
Posts and Telecommunications	5,727		4,200	
Marine	2,324		665	
Transport	2,873		680	
Total, Infrastructure	29,795	39.8	13,000	33.6
Unallocated Reserve	750	1.0	—	—
TOTAL, PUBLIC INVESTMENT	74,979	100.0	38,680	100.0

1 — This programme is detailed in Appendix A including certain projects programmed on a reserve basis.

2 — 1970 prices.

3 — Actual expenditure 1966-69, revised estimates 1970, current prices.

and even improve upon its present 'image' as a safe and desirable place for such foreign investment. Reasonable assurance of three kinds of stability — economic, social and political — is obviously the keystone.

3.27 In addition to promoting a favourable climate for private investment, both domestic and foreign, there are at least two other areas of specific importance in which the Government realises its need to act to encourage investment. The first of these is in facilitating the acquisition of sites by individuals or companies seeking to establish new enterprises or expand old ones. The second is in the field of manpower assessment and manpower training, where an effort of considerable scope is necessary in order that new enterprises may plan their future in the knowledge that adequate supplies of suitably skilled manpower will be available.

3.28 As shown in Table 3.5, the public expenditure programme for DPVI envisages an increase of more than 95 per cent over the DPV programme. Achievement of the total investment goal of $75 million will require an increase in the current capital expenditure level of about $8 million per year to an average during the next five years of $15 million.

3.29 With respect to the distribution of the proposed programme among the several categories of public expenditure it should be pointed out that a certain lack of balance is introduced by the inclusion of two large projects which have been under formulation for several years and are now both ready for implementation during DPVI. These two projects (re-construction of the Suva-Nadi road and the construction of the new Lautoka Hospital) together account for more than one-quarter of the entire public investment programme. As a consequence the allocations by categories show rather unusually large proportions in the medical and infrastructural sectors. As the programme has emerged, the medical programme alone represents 12 per cent of total public investment, whereas the infrastructural group takes up almost 40 per cent of the total. The result is that other sectors such as Community Services and Economic Services, while showing very significant increases over the amounts spent during DPV, represent in both cases smaller proportions of the total programme than during the previous Plan.

3.30 The two major projects mentioned both bear an unusual time relationship to the Plan in that on the one hand, they have been under formulation for a period of years and on the other hand, their benefits will be spread over a very long period in the future. Lautoka Hospital, although its cost has proved to be very much higher than originally estimated (construction contracts were awarded in the final quarter of 1970) fills a long-felt need for the large population on the western side of Viti Levu and will therefore be implemented early in the Plan period. The re-construction of the Suva-Nadi road, the most important road link in the country, will take place over a five-year period beginning in 1972 and so the bulk of the expenditure for this large project will also occur during the DPVI period. The road project will obviously make significant contributions to development efforts in the economic services category, with direct beneficial effects in the fields of agriculture, industry and tourism.

3.31 It is of interest to note that if these two projects were omitted from the sectoral distribution analysis the allocation to Social Services would fall to 20 per cent and Infrastructure to 29 per cent, while Community Services would represent 16 per cent of the total and Economic Services approximately 26 per cent, giving a more balanced programme from the standpoint of overall economic development and conforming more closely to the basic Plan goal of concentrating on agricultural and industrial developemnt.

3.32 Quite apart from the special impact of Lautoka Hospital on the Social Services programme it is noteworthy that the planned expenditure on education shows a very sharp increase over DPV. The emphasis on education has been recognised as vital in the twin circumstances of the large proportion of the total population in school during the Plan period and the urgent need to improve the quality of education to serve both social and economic development in the future.

3.33 The overall size of the public investment programme will raise some problems of successful implementation quite apart from the question of available finance (which is discussed in paragraphs 3.39 to 3.46). The capacity of the building and construction sector of the economy is already, at the outset of the Plan period, under considerable pressure. At the same time, there are clear indications that the private sector will significantly increase its demand for manpower and materials for new construction. The implementation of the Government programme will therefore have to be undertaken with some caution to avoid the possible creation of intolerable inflationary pressures. Although the supply of unskilled labour will continue to be more than ample (see Chapter 4) the shortage of skilled and supervisory workers and perhaps certain types of equipment is likely to be acute. This may be partially alleviated by the fact that major Government projects will be executed by private contractors from abroad who will be in a position to bring in some of the much-needed supervisory personnel.

Sources of Investment Funds

3.34 As already indicated, private investment is expected to provide about 72 per cent of the $364 million required to achieve the overall targets for DPVI. Table 3.6 presents a condensed overall view of the potential sources of funds for investment.

Table 3.6 : Summary of Sources of Investment Funds, 1971-75

	$ Million	% Share
Domestic		
Undistributed Profits and Depreciation	150	41
Personal Savings	96	26
Government Savings	20	6
Total, Domestic Sources	266	73
External		
Public Capital Inflow	47	13
Private Capital Inflow	51	14
Total, External Sources	98	27
GRAND TOTAL	364	100

3.35 As can be seen from Table 3.6, it is estimated that approximately $150 million of the funds needed for investment will be available from existing enterprises in the form of undistributed profits and allowances for depreciation. It cannot of course be assumed that all of these funds will automatically be re-invested either in maintaining the existing enterprises or in expanding them, and the achievement of the investment targets will depend upon Government policies and other factors creating a continuing favourable climate for investment.

3.36 In addition to the funds generated by enterprises operating within Fiji, it is estimated that approximately $96 million worth of personal savings will be accumulating during the DPVI Plan period. The successful mobilisation of these savings and their channelling into productive enterprises will depend not only upon the existence of suitable investment opportunities, but to some degree upon improvements in the institutional structure within Fiji by which such savings may be mobilised and made available.

3.37 The Plan envisages a number of steps to be taken by Government to accomplish these ends. It is intended to encourage the establishment of public companies, and to take the first steps towards setting up a stock exchange. Short-term Government credit instruments such as Treasury Bills will be issued. Steps will be taken to encourage the expansion of life assurance businesses and to ensure the maximum orientation of these funds to local private capital formation as well as the public sector. Other public devices to raise the level of personal savings such as premium bonds, save-as-you-earn schemes, etc., will be given consideration.

3.38 The Government sector (including local bodies) is expected to have an excess of revenue over current expenditude of about $20 million, which will be available for capital spending. The total estimated resources for investment generated within the domestic economy are thus estimated to be $266 million, almost three-quarters of the gross investment requirements. It is forecast that the rate of domestic savings will show an increase during the Plan period, but in spite of the greater availability of these domestic savings, the requirement for capital inflow will still be large ($98 million) and more than half of this will need to be private capital. This fact emphasises again that the Fiji economy cannot achieve the desired rate of growth without a substantial inflow of private capital for investment purposes, and that this inflow will depend upon the maintenance of general conditions within the country conducive to such an inflow.

3.39 Central Government investment during DPVI is programmed at a total of $75 million. Table 3.7 sets forth the estimated derivation of the funds necessary for the implementation of this expenditure programme.

3.40 As may be seen from Table 3.7, not only is the public expenditure programme of DPVI significantly larger than that implemented during DPV, but it will have to be financed in a very different way. A much larger proportion of public expenditure during the Plan period will have to be borrowed, and a significantly larger proportion of the total finance will be derived from external sources. Total borrowing accounted for just under 50 per cent of the finance for DPV, whereas for DPVI more than 70 per cent will have to be borrowed. The proportion of total funds derived from external sources will rise from about 42 per cent to about 53 per cent.

Table 3.7: Sources of Funds for Government Investment

($ million)

	DPVI [1]		DPV [2]	
	Amount	% Share	Amount	% Share
Local Borrowing	20.75	27.7	13.63	35.2
IBRD [3]	9.50	12.7	—	—
Other External Borrowing	22.73	30.4	5.33	13.8
Total, Borrowing	52.98	70.8	18.96	49.0
From Revenue	12.50	16.6	7.07	18.3
Grant Aid	7.50	10.0	10.79	27.9
Miscellaneous and Reserves	2.00	2.6	1.86	4.8
Total, Other Sources	22.00	29.2	19.72	51.0
Grand Total	74.98	100.0	38.68	100.0
of which from:				
— domestic sources	35.75	46.9	22.56	58.3
— external sources	39.73	53.1	16.12	41.7

1 — 1970 prices. 2 — current prices.
3 — International Bank for Reconstruction and Development (World Bank).

3.41 There are several reasons in addition to the size of the programme, why the present Plan will require the Government to resort to borrowing for a substantially larger proportion of its total public investment funds. The most important one is that, with the coming of Independence, grant aid from the United Kingdom will cease within a short time, in accordance with present British policy. Thus, whereas grant aid accounted for almost 28 per cent of the total funds required for the DPV investment programme (and had been even higher for previous Plans) this source will account for only 10 per cent of funds required during DPVI, this amount representing largely projects approved prior to Independence. The second reason for the need to borrow heavily is that transfers to the capital budget from current revenue, while they will increase in amount, are not expected to increase in proportion to the rising Plan expenditure, and consequently will supply only some 17 per cent of total funds during DPVI as against 18 per cent during the previous Plan period.

3.42 The expected level of transfers from current revenue to the capital budget as shown in Table 3.7 have, for planning purposes, been based on tax rates currently in effect. The Government has in fact already taken a decision to review the tax structure early in the Plan period. It may be hoped, therefore, that Plan implementation may be carried out with somewhat larger amounts derived from revenue, and somewhat reduced borrowing.

3.43 Although grant aid from external sources will be proportionately smaller, overall reliance upon external sources of funds will be significantly greater than during the previous Plan period. As shown in Table 3.7, it is estimated that only about 28 per cent of total funds can be borrowed locally, as compared with 35 per cent during DPV. This results in part from the fact that the Government will have to borrow significant amounts during the Plan period (about $4.5 million) in order to meet maturities on loans made earlier, thus reducing the proportion of new borrowing that will be available for Plan expenditure. Again, the need to call upon external sources is due in part to the relatively low proportion of the total derived from internal tax revenue, as mentioned in the previous paragraph. Finally, the internal borrowing programme must be planned in the knowledge that the Government must exercise caution so as to avoid "drying up" local sources of credit needed for the very large private sector investment programme.

3.44 On the favourable side, so far as availability of funds in the local market is concerned, is the fact that the Fiji National Provident Fund (FNPF) will be accumulating very substantial amounts of funds during the period which will be available for local investment. However, the present policy of the FNPF to make only a portion of its lendings available to the Government will likely be continued, as it is desired that a substantial portion of these funds should be available for local private investment. Moreover, during the Plan period very substantial amounts of money will be needed by such public and semi-public bodies as the municipalities, the Housing Authority, and the Fiji Electricity Authority. The Fiji Development Bank is also expanding its loans to both industry and agriculture at a fairly rapid rate, and will need more capital during the Plan period. It is likely, however, that the Bank will supplement its capital by making a large loan from an international source, possibly the Asian Development Bank or the International Bank for Reconstruction and Development (IBRD), and will thus not be entering the local market for funds on any substantial scale. A loan of $1 million was made to the Fiji Development Bank by the Government during the final year of DPV, but this is regarded as interim financing for the Bank, and is expected to be repaid during DPVI.

3.45 A variety of possible sources of loan funds from abroad are available to the Government. The amount of $9.5 million shown in the table as coming from IBRD is presumed to be for the reconstruction of the Suva-Nadi road, with respect to which preliminary discussions have already been held. Other proposals for IBRD loans will undoubtedly be made by the Government during the Plan period, and approaches may also possibly be made to the Asian Development Bank, of which Fiji recently became a member. Loan finance is expected to be available from the Government of the United Kingdom, and it is of course possible that other friendly governments will also be willing to offer loan capital. When all of these sources have been utilised to the greatest extent possible, some residual amount will still need to be borrowed in the open market abroad.

3.46 The heavy borrowing programme necessitated for the implementation of DPVI will cause a significant increase in the total Government debt outstanding. Fortunately, the level of total debt at the start of the Plan period is relatively low, and the debt which will be outstanding at the end of DPVI should remain at a manageable level. It is estimated that total Government debt of $38 million in 1970 will rise to $91 million by 1975. The cost of servicing this debt in 1975 will be approximately $8 million, or 13.7 per cent of estimated current revenue, as compared with 8.4 per cent in 1970. Of the total debt outstanding in 1975 approximately $40 million or 44 per cent will be externally held.

The Recurrent Budget

3.47 The level of recurrent expenditures during the Plan period will be subject to two upward pressures; first, the inevitable effects of rising costs of goods and services needed by the Government, including the necessary personnel, together with the desire of the Government to respond to ever-increasing demands from the public for increased quantity and quality of services; second, the added costs of servicing projects put in place in the course of the implementation of the very large capital expenditure programme. Not the least powerful of these factors will be the pressure arising from extraordinary efforts to improve the quality of education.

3.48 The framework of the Plan is based upon the presumption that overall increases in the recurrent budget during the five-year period can be held to approximately nine per cent per year. This target has been established in the belief that the many other demands upon Government finances for the development programme make it imperative that every effort be made to keep recurrent expenditures in check. It is an ambitious target, particularly in view of the fact that the growth of the recurrent budget during the closing years of Development Plan V exceeded this figure.

3.49 Table 3.8 sets forth estimates of Government revenue in 1975, based on the tax system currently in effect, and compares this figure with the expected levels of recurrent expenditure in the final year of the Plan. The latter figure is given under the two alternative assumptions of a nine per cent and a 10 per cent growth per annum in recurrent expenditure from the estimated 1970 level.

Table 3.8 : Revenue and the Recurrent Budget, 1970 and 1975.
($ million)

	1970	1975
Indirect Taxation	19.68	31.2
Direct Taxation	11.95	15.7
Total Tax Revenue	31.63	46.9
Other Revenue	8.32	12.3
Total Revenue	39.95	59.2
Less Refunds and Drawbacks	0.75	0.9
Total Recurrent Revenue	39.20	58.3
Less transfer to Capital Budget	1.20	3.5
Available for Recurrent Expenditure	38.00	54.8
Estimated Recurrent Expenditure		
— at 9% p.a. growth	39.25	55.0
— at 10% p.a. growth	39.25	57.6

3.50 The need for both close control of recurrent expenditure and reform of the tax system seems clear. Even if recurrent expenditure growth can be held to nine per cent per annum the estimates show a small recurrent deficit in 1975 under present tax rates. If recurrent expenditure in fact grows at 10 per cent, that deficit will grow to $2.8 million in 1975. Furthermore, these figures are based upon a rather modest transfer of recurrent revenue to the capital budget, rising from $1.2 million in 1971 to $3.5 million in 1975. In view of the very heavy demands of the capital budget and the large scale borrowing that will be required, under these assumptions, to finance it, it would of course be highly desirable, as indicated earlier, to increase the size of the annual transfer from recurrent revenue to the capital budget. The need for early revision of the tax structure is thus underlined. This is needed not only to provide a better balance between development costs financed by taxation and by borrowing, but also to give early effect to the Plan's basic objective of mitigating the trend toward greater inequality in income distribution.

Conclusion

3.51 This chapter has reviewed the overall shape of Development Plan VI, and pointed out some of the structural changes in the economy that are expected to take place during the Plan period. The targets for economic growth are fairly ambitious, and the realisation of these targets will necessitate a very heavy investment programme. This particular Plan period is in many senses a critical period in Fiji's development. It is the first Plan of the newly independent country. It is undertaken at a time hen the great size of competing demands for investment in economic development and in accelerating social development, especially in the education field, are most clearly manifested. This situation is unavoidedly intensified by the rapid population growth of the last decade which is straining the education system and simultaneously highlights the need to make maximum efforts to create employment opportunities for the rapidly increasing labour force. These diverse yet urgent objectives have faced the Government with considerable difficulty in the formulation of a well-balanced plan.

3.52 Much of this chapter has been concerned with public spending and the financing of such spending. But policies for development, especially those designed to induce the private sector to play its appropriate part, are also vital. Of equal importance is a programme to provide for the right amount of manpower with the right skills. Some of the issues involved in these two categories of problems are discussed in the following two chapters.

CHAPTER 4

POPULATION, EMPLOYMENT AND MANPOWER

This chapter surveys the broad aspects of human resource utilisation and development. It also outlines some planned policy measures and discusses some issues to be given further consideration during the Plan period. The central objective of manpower policy is to raise the productivity of the labour force by increasing the level of employment, by raising the duration and increasing the intensity of work, and by planning for a suitable supply of skills.[1] Because the results of programmes in this sphere can take many years to be realised, this chapter does not confine itself to the 1971-75 period, but takes a longer perspective.

The Population

4.2 The total population in 1970 is estimated at 526,000. If the family planning targets can be met it will rise to 589,000 in 1975. This increase of 63,000 represents an annual growth rate of 2.3 per cent per annum which compares with an average rate of growth of 2.5 per cent per annum during the previous Plan period. The decline in the rate of natural increase in Development Plan VI is not expected to be as dramatic as that which occurred in Development Plan V. This is for several reasons. First, the family planning programme is likely to encounter increasing resistance in reducing births still further. Second, certain structural factors which may have helped reduce the birth rate in the late 1960s may not continue to exert a similar

Table 4.1 : Total End-Year Population, 1965-85

(thousand)

	1965	1970	1975	1980	1985
Low Projection	466	526	589	653	717
High Projection			592	666	742

Note: This table appears in detail in Appendix D.

Table 4.2 : Projected Birth, Death and Natural Increase Rates

(per thousand of the end-year population)

	1965	1970	1975	1980	1985
Birth Rate					
Low Projection	35.75	29.16	27.15	25.26	23.71
High Projection			28.90	28.62	26.79
Death Rate					
Low Projection	5.12	5.53	5.43	5.73	5.98
High Projection			5.44	5.76	5.92
Natural Increase Rate					
Low Projection	30.63	23.63	21.72	19.53	17.73
High Projection			23.46	22.86	20.87

Note: This table appears in detail in Appendix D.

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[1] Of course labour productivity is also increased by investment.

influence in the future.[1] Third, the number of women entering the fertile age group will increase quite rapidly, and fourth, these projections assume no net emmigration. On the other hand the expected rapid development of the economy and the associated social changes are likely to increase awareness of the advantage of smaller families.

4.3 In the longer run the effects of the family planning programme are less certain. Two projections of the population to 1985 are therefore shown in Table 4.1. The low, or target, population projection assumes a fertility rate of 94 by 1985, while the high projection assumes a fertility rate of 110 by 1985.[2] These compare with a rate of 142.5 in 1968. The birth, death and natural increase rates associated with these two projections are shown in Table 4.2.

4.4 During the period of the Plan it is hoped that the low target of population growth can be achieved. This will involve a further reduction of fertility rates from the 1969 level involving some 7,600 fewer births during the 1971-75 period. If this target can be met it will bring many benefits during the following decade, particularly in education. Even so, the rapid decline in the birth rate which occurred between 1960 and 1970 will have a significant effect in reducing the pressure on primary school places during the Plan period and will reduce the demand for jobs in the 1980s.[3] These encouraging prospects are an indication of what can be achieved through reductions in the birth rate and should serve as an added stimulus to the family planning programme. This programme is to be the subject of an early evaluation during the Plan period, and it is hoped that this will result in the deployment of additional resources. Although the results of birth limitation are long term in nature, the return on investments in family planning is probably higher than in any other field of investment for national development. This programme will therefore be given the highest priority in the coming years.

4.5 Increased emphasis on family planning during the next five years will not result in any dramatic advantages during the Plan period. The children wishing to start school and the school leavers seeking jobs during the DPVI period are already a part of the population. Many of the problematic consequences of rapid population growth have still to be met. In particular the rapid growth of the labour force during the Plan period and beyond, and the consequent pressure on the employment situation will continue for many years.

The Labour Force

4.6 The labour force includes both those at work and those who are unemployed; i.e. all those who are willing to work under existing conditions.. Table 4.3 estimates the size of the labour force for 1965 and 1970 and projects this forward to 1985. These projections are based on the population estimates summarised in Table 4.1, and assume a slight decline in male participation and a rapid increase in female participation.[1]

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[1] It is probable that delayed marriage by Indian women was a factor in the rapid fall of the birth rate in the 1960s.

[2] Fertility rate is the annual number of live births per thousand women aged 15-44.

[3] See Table 4.3

Table 4.3 : Labour Force Estimates, 1966-1985

(thousand, end-year)

	1965	1970	1975	1980	1985
Labour Force	120.3	149.5	181.4	218.9	257.4
Growth Rate (% p.a.)		4.4	3.9	3.8	3.4

Note : The labour force enumerated at the 1966 Census of Population was 125,809.

4.7 Prior to 1966 the labour force was growing at a slower rate than population. However, as a result of the rising birth rate in the nineteen forties and fifties, its subsequent decline in the sixties and the effect of this on the structure of the population the situation has been reversed. Since 1965 the labour force has grown very rapidly and during the Plan period it will rise from around 149.5 thousand to around 181.4 thousand, i.e. at an average rate of growth of 3.9 per cent per annum. Of this increase of 31.9 thousand, 91 per cent is due to population growth and only nine per cent is due to changing rates of participation.

Employment

4.8 The majority of the 31.9 thousand people who are expected to seek a job during the Plan period will be school leavers. Many of these are likely to join family enterprises in the agricultural sector, but many others will remain in or migrate to the major urban centres in search of employment. Table 4.4 estimates the employment situation for 1970 and for 1975. These estimates of the changing structure of employment reflect the Plan's sectoral output targets.

Table 4.4 : Estimated Wage, Salary and Self-Employment, 1970 and 1975

	1970	1975
Agriculture, Forestry and Fishing		
— mainly subsistence	29,200	29,200
— cash or mainly cash	47,900	58,300
Mining and Quarrying	2,000	2,200
Manufacturing and Processing	12,100	13,500
Building and Construction	10,400	14,600
Electricity and Water	1,000	1,300
Transport and Communications	8,500	10,200
Commerce	11,200	14,200
Tourism	2,900	7,200
Government Services	10,400	12,600
Other Services	4,700	6,000
Total Employment	139,900	169,300
Urban Unemployment	9,600	12,100
Total Labour Force	149,500	181,400

Notes :
1. Totals may not add due to rounding.
2. Estimates of agricultural employment and of urban unemployment are subject to considerable error; see paragraphs 4.10 and 4.11.
3. The data on agricultural employment is not comparable with the National Income estimates, because the latter includes the subsistence output of cash farmers in addition to the output of farmers in the subsistence sector.
4. The 1975 estimate of employment in the Transport and Communications sector may be too low.

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[1] The male participation ratio is assumed to decline from 89.9 per cent in 1966 to 87.5 per cent in 1985 and the female participation ratio is assumed to increase from 7.5 per cent in 1966 to 19.3 per cent in 1985. These assumptions are detailed in Appendix D.

4.9 As can be seen from Table 4.4, the agricultural sector is likely to continue to be the main source of employment, although only a very small proportion of this will be wage employment. Employment in the mining and quarrying sector is unlikely to rise substantially, primarily because the output of gold mining is unlikely to increase. Future uncertainties make it difficult to assess the employment that might be generated by new mining ventures, although an acceleration of prospecting will provide some new job opportunities. Employment in the manufacturing and processing sector is dominated by sugar milling. With effective limitations on increasing the output of sugar this industry is unlikely to provide many new job opportunities. Although other types of manufacturing are projected to increase their output at eight per cent per annum, increases in productivity may severely limit the amount of new employment in this sector.[1] The rapid expansion of the construction industry is likely to continue during the Plan period, as a direct result of the ambitious investment programmes envisaged in both the private and public sectors. This, combined with the difficulties of increasing productivity, can be expected to provide a considerable number of new job opportunities in this sector. Expansion in the tourist sector is also likely to be very rapid and despite its present small size the absolute number of new job opportunities is likely to be quite substantial. The amount of new employment in the private services sectors is projected to increase considerably during the Plan period, along with a general rise in the standard of living and demands generated by other sectors. Employment in the Government sector is also likely to increase rapidly due to the projected high rate of public expenditure in the provision of new and expanded services.

4.10 Overall, the successful implementation of the Plan is projected to generate an additional 19,000 new employment opportunities in the non-agricultural sectors. Not all of these will be wage or salary jobs because family and self-employment are likely to remain important features of the commercial and other services sectors, and to a lesser extent of the construction, and manufacturing and processing sectors. These estimates are likely to overstate the number of persons who will actually find employment since a number of job opportunities will remain unfilled because of skill shortages. The growth of employment in the agricultural sector is particularly difficult to estimate because it is dependent on numerous unpredictable factors. For instance it is directly related to the level of urban unemployment and the size of the subsistence sector. Although estimates for these three items are presented in Table 4.4 they are subject to a considerable degree of error. For instance larger numbers may remain in the agricultural sector, thus reducing the estimate of urban unemployment. On the other hand rapid increases in wages and in the number of secondary school leavers might have the opposite effect.

4.11 Despite these uncertainties it is clear that additions to the labour force during the Plan period cannot be entirely absorbed into wage and salary employment, or even self-employment, in the non-agricultural sectors of the economy. As a consequence there is likely to be a fairly rapid growth of employment in the agricultural sector or in the level of urban unemployment or in a combination of both. As a consequence of this, a central objective of the Plan is the improvement of employment prospects. Throughout the Plan period policies which can assist in the achievement of this target will be given the highest priority.

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[1] Unless stated otherwise, productivity is defined as output per man year throughout this chapter.

4.12 In giving overall consideration to the economy's potential to provide employment, the target rates of growth in the various economic sectors are of prime importance. This is because every sector has a diffierent employment generating potential. In the non-agricultural sectors there is always a conflict between the need to improve productivity and the need to promote employment. There is of course no advantage to be gained from slowing the growth of productivity because of the consequences for prices and the balance of payments. There are however, a limited number of processes which are relatively labour intensive, such as the manufacture of knitted textiles and clothing, shipbuilding and repairing, coconut processing, woodworking, tanning and leather working, packaging and handling and some types of construction work. During the Plan period the Government will be engaged in the completion and preparation of relevant feasibility studies as a first step in encouraging investors to enter these fields. Furthermore, Government will continue to evaluate requests for tax and tariff concessions on the basis of their effects on employment. It is also to be hoped that the Development Bank will, where feasible, apply the same criterion in its lending activities. Employment in the tourist sector can be expected to rise rapidly despite the capital intensity of hotel investment. No measures to divert this investment towards more labour intensive activities are expected to be implemented during the Plan period.

4.13 The opportunities for increasing labour intensity in the non-agricultural sectors are thus limited. In the agricultural sector, however, the conflict between employment and productivity does not occur because the number of workplaces is variable and not determined by the growth of output. This is because as long as family enterprises are willing to share out the work among all members of the family, then there is virtually full employment in the agricultural sector, in the sense that the majority of the agricultural labour force are able to find a workplace. The objective in the agricultural sector must therefore be to increase productivity; not just to keep pace with the growing agricultural population, but to *raise* the incomes of farmers and their families as well. In this way it is hoped that rural life can be made both more rewarding and attractive, thus slowing down the urban drift, reducing the rate of increase of urban unemployment and raising the incomes of a large section of the population. The agricultural policies necessary to move towards these objectives are first, a continuation of efforts to modernise farming practice, which will increase productivity, and second, an improvement in the marketing of agricultural produce in order to provide an incentive to increased output and productivity. It may even become feasible during the Plan period to shift the urban-rural terms of trade in favour of the agricultural sector.[1] The successful implementation of these plans will be a major factor in easing the employment situation.

4.14 As was mentioned above, the projections of employment in the agricultural sector and of the associated level of urban unemployment are speculative in nature. However they do show that if the target rate of growth in the cash agricultural sector is achieved, and if productivity increases at 0.5 per cent per annum then substantial increases in a combination of urban unemployment and subsistence can be expected. On the other hand the unquantifiable effects of marketing policy and the possibility of shifting the rural-urban terms of trade may result in a less unfavourable situation. Because of the uncertainties about the future state of employment a close watch will be kept by Government, so that further corrective measures can be taken if the situation deteriorates.

Skill and Work Incentives

4.15 The creation and maintenance of adequate financial incentives are essential elements in determining an individual's willingness to work and to increase his or her level of skill. Naturally in a highly imperfect labour market, which is divided into many segments by institutional and attitudinal forces, financial incentives alone are an insufficient solution to the problem of increasing the level of work duration and intensity. Nevertheless they can be a vital element in an overall policy.

4.16 It is in the agricultural sector that work duration and intensity have their lowest values. Furthermore, it is clear that an increased labour input in this sector will result in significant increases in output and that farmers respond fairly rapidly to changed financial incentives. Thus an important way of increasing the productivity of the agricultural labour force is through the creation of adequate financial incentives. This is a long-term objective of the agricultural marketing policy. By organising and rationalising the physical problems of marketing, considerable latent demand is expected to be forthcoming, resulting in added incentives for individual farmers. A continuation of measures to modernise farming practice is an essential related policy, because this will enable farmers to respond to the new ncentives, increase their labour input and productivity and hence raise their incomes.

4.17 In the non-agricultural wage and salary sector the movements of wages can be a major incentive in increasing the duration and intensity of work and thereby productivity. Clearly, all-round wage increases are not likely to stimulate overall productivity — rather, a wage increase in a particular firm or ndustry, which is related to past increases in productivity, is likely to stimulate increased productivity in the future. The acceptable rate of wage increases for the successful implementation of this Plan is discussed in Chapter 5. Of equal if not of greater concern than the overall level of wages is their structure and methods of determination. In recent years the incentives to improved levels of skill have declined quite sharply. Table 4.5 compares over a period of time the movements of wage rates for the least and the most skilled wage earners in the Public

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[1] These policies and the associated programmes are discussed in Chapters 8 and 14.

Works Department. These movements are generally representative of those in the non-agricultural sector.

Table 4.5: Representative[1] Money Wage Rate Indices, 1955-70.

(1965 = 100)	1955	1959	1963	1965	1967	1969	1970
Minimum Rate	63.6	79.5	84.1	100.0	109.1	121.6	125.0
Maximum Rate	94.4	95.0	95.6	100.0	102.5	105.9	106.9

1 — Public Works Department.

4.18 These indices clearly show how the minimum wage rate has risen faster than the maximum rate, with a consequent decline in the incentive for an individual to achieve a higher level of skill. The need to ensure a satisfactory skill margin does not necessarily conflict with a major objective of this Plan; to mitigate increasing income disparities. This is because in order for skill margins to act as an incentive to increased productivity, they should reward increasing levels of skill within the *same* trade or occupation, and only to a much lesser extent the levels of skill *between* different trades and occupations.

4.19 A major cause of declining skill margins has been the typical outcome of collective bargaining, where wage awards have been agreed as absolute increases 'across the board'. As a result the percentage increase has been less for a more skilled worker than for a less skilled worker. In order, therefore, to make a contribution to increased productivity during the Plan period, those involved in the negotiation of wage awards must be aware of the need to give consideration to these factors in their determination of wage rates. Furthermore, a recognition of the role of productivity-related payments and the complementary need for employees to be paid according to their skill and competence, rather than by their occupation, could go a long way toward improving productivity. Naturally the provision of skill incentives will make little or no impact on productivity unless adequate training facilities exist. This will be discussed in paragraphs 4.25 to 4.43.

Improving the Organisation of Work

4.20 A further set of policy measures which can assist in raising the level of productivity are those which foster an improved organisation of work. A number of projects in this plan will help in this direction. For instance the reconstruction of the Suva-Nadi road will raise the productivity of transport drivers, and will enable those firms which utilise this road to make improvements in the organisation of their operations. In a similar manner other infrastructural projects will enable many firms and Government departments to improve the efficiency of their organisation of work. The beneficial efforts on productivity of these and related projects will undoubtedly take many years to be fully realised. However, in the duration of this Plan one important short-run improvement can be made by training managers and supervisors in some basic techniques of work organisation This will be achieved through a continuation of the Ministry of Labour's Training Within Industry programme, which is being planned to enable virtually all supervisors, foremen and charge hands in the non-agricultural sectors to attend at least one course during the Plan period. In addition to this direct form of on-the-job training the Industrial Training Centre will continue to train instructors to enable firms to increase their own internal training programmes.

Manpower Requirements

4.21 In addition to the problem of creating enough jobs for the rapidly expanding labour force, Fiji also faces a shortage of skills for development. For instance, the present shortage of building and construction supervisors is resulting in a low level of work organisation which depresses productivity. The shortage of electrical fitters would, if the regulations were strictly enforced, bring about a standstill in the installation of electrical equipment. And the shortage of technicians is depressing the productivity of professionals. These and other shortages inhibit the growth of output and of productivity as well as creating inflationary pressure. To avoid this situation in the future it is necessary to project manpower requirements so that training institutions supply the correct mix of skills.

4.22 Because of the long gestation period involved in many types of training, the projections of the demand for professional, technical and vocational skills are presented for the next 15 years. In the short run the output of skills cannot be radically changed. All the apprentices, and a majority of diplomates and graduates who will complete their courses during the Plan period, are already enrolled. Hence it is necessary to project skill requirements for a longer period into the future so that suitable training programmes can be designed and instituted in the immediate future. The projections in Tables 4.6 and 4.7 must be treated with particular caution because they are based on inadequate data, and represent one set of estimates about the future growth and productivity of the economy, and about changes in the occupational structure that are likely to take place.[1] For certain categories of skills such as teachers, doctors, and nurses, future needs can be forecast with considerable accuracy, and such assessments are already being made. In other fields much less is known about the specific skills and training required for a whole range of more generalised occupations, and good forecasting can be achieved only after considerable investigation. These investigations and the improvement of forecasting will be a major preoccupation of the Manpower Resources Council and the Central Planning Office during the life of the Plan.

4.23 Table 4.6 shows the projections of employment to 1985 classified by major occupational groups. The rapid growth of professional, technical and related workers is indicative of the assumed intensification of skills in most of the industrial sectors. The obverse of this is the relatively slow growth of clerical and related workers and labourers. The rapid increase in service workers primarily reflects growth in the tourist sector. The slow growth of self-employment reflects an assumed trend towards larger production units, and a consequent increase in

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[1] These assumptions are detailed in Appendix D.

Table 4.6 : Employment, by Occupational Groups, 1969 and Projection for 1985.

ISCO[1] Occupational Code	ISCO Occupational Group	1969 Actual		1985 Projection	
		Employment	% Share	Employment	% Share
Major Groups 0/1	Professional, Technical and Related Workers	6,450	5.9	16,780	8.1
Major Group 2	Administrative and Managerial Workers	1,280	1.2	3,100	1.5
Major Group 3	Clerical and Related Workers	7,150	6.6	14,570	7.0
Major Group 4	Sales Workers	1,590	1.5	6,820	3.3
Major Group 5	Service Workers	2,080	1.9	11,790	5.7
Major Groups 6/7/8/9 excluding minor group 99 and self-employed	Agricultural, Production and Related Workers	15,100	13.8	33,880	16.3
Minor Group 99	Labourers	15,150	13.9	25,630	12.3
—	Self-Employed and Undefined[2]	60,230	55.2	95,220	45.8
—	Total[2]	109,040	100.0	207,790	100.0

Notes : A. Totals do not add due to rounding.

B. The occupational distribution shown in this table is classified by industrial sector in Appendix D.

1 — International Standard Classification of Occupations.

2 — excludes subsistence employment.

wage and salary employment. The most striking feature of these projections is the continuing predominance of self-employment the majority of which is in the agriculture, forestry and fishing sector.

4.24 The data in Table 4.6 show the implied changes in the levels of employment appropriate to current assumptions about the growth of the economy and shifts in the occupational structure. However, these changes do not indicate the number of new entrants into each occupation during the 1969-85 period, because in that time those who die or retire will need to be

Table 4.7: Total New Entrants Required for Selected Occupations, 1970-85

ISCO Code			
Major Group	Minor Group	Occupational Title	New Entrants Required
0/1		Professional, Technical and Related Workers	12,540
0	1	— physical scientists	150
0	1	— physical science technicians	370
0	2,3	— architects and engineers	840
0	2,3	— architectural and engineering technicians	1,900
		— life scientists	160
		— life science technicians	730
0	6,7	— medical, dental and veterinary workers	710
0	6,7	— medical, dental and veterinary technicians	1,870
1	1	— accountants	380
1	3	— teachers	5,200
0/1	Others [1]	— professional, technical and related workers n.e.c.	250
2	—	Administrative and Managerial Workers	2,170
3	—	Clerical and Related Workers	9,420
4	—	Sales Workers	5,710
5	—	Service Workers	10,280
8/9	—	Production and Related Workers, Transport Equipment Operators and Labourers [2]	35,220
	1	— miners, quarrymen, well-drillers and related workers	420
	7	— food and beverage processors	180
8	3,4	— machinery fitters, assemblers and machine-tool operators	1,480
8	5	— electrical fitters and related electrical and electronics workers	1,050
8	3,7	— plumbers, welders, blacksmiths, sheetmetal and structural metal preparers and erectors	660
9	3,5	— painters, bricklayers, carpenters and cabinetmakers [3]	5,140
9	7,8	— transport, material handling equipment operators	2,980
7/8/9	Others [1]	— production and related workers n.e.c.	8,900
9	9	— labourers	14,410

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1 — 'Others' means all other minor groups not specifically detailed in table.

2 — Group 7-0, supervisors and foremen, are included in their respective trades.

3 — Also includes Group 8-1.

replaced. Thus, Table 4.7 shows the total demand over the period for a number of selected occupations, i.e. the number of people that would have to enter a specific occupation for the first time between 1969 and 1985 in order to meet the targets and assumptions of the projections in Table 4.6. In interpreting the total demands in Table 4.7, consideration must be given to

Table 4.8: Supply and Demand Estimates for Professional, Technical and Vocational Skills, 1970-85

Occupation	Total Demand for Training 1970-85	Supply [1]	
		On-stream 1970-75	Balance Required 1976-85
Professional, Technical and Related Workers			
— physical scientists	150	103	47
— physical science technicians	370	—	370
— architects and engineers	840	66	774
— architectural and engineering technicians	1,900	258	1,642
— life scientists	160	78	82
— life science technicians	730	134	596
— medical, dental and veterinary workers	710	104	606
— medical, dental and veterinary technicians	1,870	410	1,460
— accountants	380	33	347
— teachers	5,200	1,205	3,995
— professional, technical and related workers n.e.c.	188	114	74
Administrative and Managerial Workers	540	225	315
Clerical and Related Workers	6,590	1,896	4,694
Sales Workers	—	—	—
Service Workers	6,170	—	6,170
Production and Related Workers, Transport Equipment Operators and Labourers [2]			
— miners, quarrymen, well-drillers and related workers	105	8	97
— food and beverage processors	—	—	—
— machinery fitters, assemblers and machine tool operators	1,330	367	963
— electrical fitters and related electrical and electronic workers	945	136	809
— plumbers, welders, blacksmiths, sheet and structural metal preparers and erectors	595	176	419
— painters, blocklayers, carpenters and cabinetmakers [3]	2,185	173	2,012
— transport and material handling equipment operators	—	—	—
— production and related workers n.e.c.	2,350	—	2,350
— labourers	—	—	—

Note: This Table is a summary; it is detailed in Appendix D.

1 — supply 'on-stream' is output of those already entered or expected to enter into training schemes; 'balance required' is balance to be trained to enter labour force over 1976-85 if demand is to be satisfied.

2 — Group 7-0, supervisors and foremen, are included in their respective trades.

3 — also includes Group 8.1.

their scope because they do not include family and self-employment nor do they include agricultural, production and related workers for the agriculture, forestry and fishing sector. These exclusions do not, however, invalidate the usefulness of the projections for planning training programmes for all groups other than wage and self-employment in the agriculture, forestry and fishing sector.

Demand for and Supply of Manpower

4.25 The long-term demand for professional, technical and vocational skills is matched in Table 4.8 with the expected supply in the 1970-75 period. From this the supply required between 1976 and 1985 is derived. The data show that in virtually all the selected occupations, the existing capacities to train new entrants are, more or less, inadequate. The following paragraphs interpret these supply and demand estimates and indicate the programmes to be implemented during the Plan period to eventually meet the majority of skill shortfalls.

4.26 Table 4.8 estimates that the supply of both physical and life scientists is likely to be adequate to meet demand. The tentative conclusion as to oversupply, however is subject to two important qualifications. First, the oversupply may be greater in that not all graduates who become available will be trained at the University of the South Pacific (USP) — some will continue to prefer training abroad. Second, the indicated oversupply may be illusory in that an unknown proportion of science graduates will enter employment as administrative and managerial workers, or as teachers.

4.27 The University of the South Pacific does not plan to run, in the foreseeable future, undergraduate courses in architecture or engineering, because of the high costs involved. The supply of these skills will therefore continue to be from overseas universities. The demand estimate for new entrants to this occupation is the highest of all the demands for graduates and will, therefore, be given the highest priority by the Government in the allocation of overseas scholarships.

4.28 The present rate of supply of doctors, dentists, veterinaries and pharmacists will be inadequate to meet the demand estimate. However, a Committee on Medical Education will report early in the Plan period on medical education and training at the tertiary level in the South Pacific. Among other things, this Committee is being asked to assess the future needs for trained medical and dental personnel and to make recommendations on the future relationship of the USP and the Fiji School of Medicine.

4.29 The supply of professional accountants from overseas institutions during the period of the Plan is expected to continue. However a diploma course is to be introduced at the Derrick Technical Institute (DTI) in 1971 with an estimated output of 15 accountants at sub-professional level in 1973. If the anticipated demand for accountants at this level is realised it will be possible to increase the output to an annual maximum of 30. It is likely that a number of students will continue to go overseas to obtain full professional qualifications and that some of these may have first completed the sub-professional course at the DTI.

4.30 The demand for teachers represents 41 per cent of the total demand for all professional, technical and related workers. More detailed estimates than those presented here, have been made by a committee specially set up to appraise the long-term needs for teachers. The supply of graduate and diploma level secondary school teachers from the University of the South Pacific is likely to be sufficient by the end of the Plan period. The demand for primary teachers is very much greater and so the highest priority is to be given to two major projects to increase primary teacher training capacity. The first of these is the re-construction of Nasinu Training College to increase its capacity to 300 students. This project is due for completion in 1972. The second project is the construction of a new Primary Teacher Training College in Lautoka with a capacity of 360. The construction of this College is planned for 1973 and 1974.

4.31 The demand for graduates in the two groups, professional, technical and related workers n.e.c. and administrative and managerial workers will primarily be met by graduates from the USP's School of Economic and Social Development. The estimates of required supply are an overestimate to the extent that they include the demand for lawyers and no graduate course in law is to be introduced at the USP in the near future.

4.32 Although the demand and supply projections for university graduates are quite encouraging there are likely to be serious shortfalls at the technician level in a number of occupations. At present no physical science technicians are being trained in Fiji and yet there is a projected demand for training for a total of 370 up to 1985. To meet this demand a diploma course is to be instituted at the DTI during the Plan period. The supply of life science technicians has proved adequate in the past; however the output of diplomates from the Fiji School of Agriculture (FSA) will have to rise quite rapidly to fully meet the demand to 1985. It is, therefore, intended during the Plan period to expand the classroom and residential facilities at the FSA to increase the supply of diplomates and to enlarge its capacity to provide in-service training.

4.33 The greatest projected shortfall at the technician level is in the fields of architecture and engineering. To make a start in satisfying this demand a number of new technician courses are to be instituted at the DTI towards the end of the Plan period, in such subjects as plant maintenance and installation, production engineering, construction and architecture and surveying.

4.34 The projected demands to 1985 for medical technicians are to be partially met during the Plan period by the construction of a new nursing school. This project is planned to be started in 1974 and completed the following year. This will increase the efficiency of nurse training as well as providing larger facilities for an expanded output of nurses.

4.35 A course in business studies is also to be instituted at the DTI early in the Plan period, which will go some way towards meeting the demand for administrative and managerial workers.

4.36 It is hoped that the increased demand for clerical and related workers can be met by increasing the output from secretarial courses and by the establishment of clerical courses at the DTI. The planned Centre for Further Education in the Western Division will have facilities for part and full-time secretarial training.

4.37 The projected rapid increase in the tourist industry is estimated to generate a demand to 1985 for some 6,190 trained hotel staff. On-the-job training courses are currently being run by the DTI but it is planned to develop a School of Hotel and Catering Services during the Plan period. This project is expected to be operating in temporary accommodation in late 1971. Schemes of learnership and apprenticeship for restaurant and kitchen personnel have been approved by the Apprenticeship Council and will be brought into operation when teaching facilities become available. It is also proposed to train reception and housekeeping personnel, catering ratings for local tourist vessels and institutional management personnel, but some of these courses may have to be deferred until a purpose-built school is provided.

4.38 To increase the supply of skilled tradesmen two major projects are planned to be begun in the 1970-75 period. The first of these is an expansion of the DTI involving some five new workshops and additional lecture rooms. The second project is the creation of a Centre for Further Education in the Western Division. Initially the centre will include facilities for training around 100 apprentices in automotive engineering, electrical fitting and mechanics, and fitting and machining. This planned decentralisation of apprentice training will release hostel space at the DTI. The effective increase in capacity will enable the Institute to train an increasing number of apprentices from the smaller urban centres.

4.39 A report recommending the establishment of a regional School of Maritime Studies has been received and is under consideration by Government. Comments from other Governments and Administrations concerned with the regional aspects have been invited. The report envisages that the School will provide local courses for merchant navy and fisheries ratings and regional courses for merchant navy fisheries cadets. Similar courses are envisaged for engine-room and catering ratings and for engineer cadets, radio officers etc. Proposals are included for the establishment of close links with the University of the South Pacific in the field of marine biology. Residential accommodation for 78 students in Phase I and for a further 140 in Phase II is proposed. This project is planned to be implemented in 1974 and 1975.

4.40 All these projects are likely to have a significant impact in reducing the projected skill shortfalls. However, these projections and the training programmes outlined above ignore the vital field of agricultural training. The continuing and overriding importance of the agricultural sector in the future economic growth of Fiji, and the need to concentrate additional financial and human resources in an effort to raise the productivity of the agricultural labour force are reflected in the major role to be played by this sector during the Plan period. An essential element in stimulating agricultural productivity is the training of researchers, extension workers and farmers. The University of the South Pacific is currently considering the needs at graduate level. The Fiji School of Agriculture is to be expanded during the Plan period to enable it to increase its output of diplomates in tropical agriculture and to enlarge its capacity for the in-service training of extension workers.

4.41 Although the annual number of new entrants into the agricultural labour force is estimated at around 2,100 for the Plan period, it is at the present time impossible to specify whether these new entrants are in control of a farm, are casual agricultural workers or simply additions to a family farming unit. However, there is clearly an overwhelming requirement for an increased level of farmer training, both for new entrants and existing farmers. For this reason it is planned to expand Navuso Agricultural School in order to provide residential courses for farmers. These will vary according to the specific requirements of different types of farming and will extend for varying periods of between one week and three months. In addition to this, encouragement is planned to be given to suitable non-government institutions engaged in farmer training to enable them to expand their activities. It is also hoped to establish two further vocational schools of agriculture similar to Navuso Agricultural School, one in the dry zone of Viti Levu and the other in Vanua Levu or Taveuni, and to extend the vocational course in agriculture conducted at Ratu Kadavulevu School by providing student farmer facilities there. Students returning to rural communities from Junior Secondary Schools will have undertaken specialised courses designed to fit them for agricultural pursuits.

4.42 All of the training programmes outlined above will go a considerable way towards meeting the skill requirements estimated in Table 4.8. However most of these projects are unlikely to be supplying additional skilled manpower within the period of the Plan. Thus the skilled manpower situation is likely to deteriorate during the early years of the Plan period. No estimates of the overall rate of localisation have been made. However, this will have little effect on the estimates of manpower demand in 1985, because localisation is simply an accelerated rate of replacement similar to other pre-retirement losses from the labour force. The most serious shortages during the Plan period are likely to be in the supply of technicians and of skilled tradesmen in building and construction occupations. Furthermore, it is not known to what extent the emigration of trained manpower will continue, although with adequate training facilities this problem can be faced with equanimity.

4.43 In order to mitigate the effects of skill shortages in the shorter run the Government intends to take action in a variety of ways. First, consideration will be given to a number of proposals to involve the private sector more fully in the training process, to reduce where possible the required period of training and to accelerate the output of skilled manual workers. Second, it is intended to increase the effective utilisation of existing training capacities by, for instance, improving techniques for the selection of entrants to a wide range of training institutions. Third, the Ministry of Labour will continue to permit the employment of skilled expatriates under certain conditions, and fourth, a vocation information, and eventually guidance, unit is to be created during the Plan period. In these and other ways it is hoped to increase considerably the supply of a wide range of skills by maximising existing training capacities.

Manpower Requirements and Primary and Secondary Education[1]

4.44 The existing size of the primary school system and recent rapid development of the secondary school system are likely to ensure a generally adequate supply of educated people to meet the skilled manpower demands of the economy for some years to come. Preliminary estimates of the demand for secondary school graduates suggest that the number of successful candidates in the University Entrance exam who wish to enter the labour force will exceed the demand early in the period of the Plan. Demands for labour force entrants at School Certificate level are less certain, although there is unlikely to be a serious supply shortage.

4.45 Because of this relatively satisfactory situation in terms of the school system's ability to meet the basic human resource needs of the economy, the objectives of primary and secondary education policy have not been determined solely by economic requirements. Thus during the Plan period the major preoccupations of education policy will be first, to improve markedly the quality of education, second, to further reduce the costs of education to parents and third to redress the present imbalance in the educational attainment of Fiji's two major races. By the middle of the 1980s it is planned to enable every child to have at least ten years of education, the first six of which will be compulsory and fee-free. The achievement of these longer term aims will be partly dependent on the economy's ability to provide sufficient funds but will also largely depend on the degree of success of the family planning programme in the period of the Plan.

4.46 Many of the programmes to be implemented in the Plan period will not have an immediate effect on the education system. For instance graduates from the planned Lautoka Teachers Training College will not be entering the teaching service until the late 1970s. Similarly, graduates from the network of Junior Secondary schools will not be entering the labour force until the end of this Plan. However, numerous other measures are likely to have an immediate impact in the Plan period. For instance the in-service training of teachers and rapid increase in the provision of free texts will raise the quality of education, increases in grants to schools and other forms of assistance should immediately reduce parental costs of education, and a suitable allocation of funds for the remission of fees between the two major races will help toward redressing the present racial imbalance.

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[1] Policies and programmes in education are detailed in Chapter 17.

4.47 To achieve these and the other objectives detailed in Chapter 17, the volume of public investment in education is planned to total $7,968,000. This is more than double the actual expenditure in the previous Plan period and is indicative of the very high priority given to the education sector. In doing so, the Government recognises not only that the process of economic development requires a heavy input of educated manpower, but more importantly, that the provision of adequate education facilities throughout Fiji is an important way of moderating disparities in living standards, as well as providing an equal opportunity for all citizens to participate in the cultural and economic life of the nation.

CHAPTER 5

FISCAL, MONETARY AND RELATED POLICIES

This plan postulates a consistent framework designed to achieve a number of economic objectives. The achievement of these objectives is to a large extent dependent on numerous decisions taken in the private sector of the economy; production decisions by farmers, investment decisions by businessmen and so on. Government must therefore provide an environment which is conducive to business activity as well as influencing the private sector to take decisions consistent with Plan objectives. To the extent that Fiji is a market economy, this Plan is indicative rather than imperative in nature. Fiscal and monetary policies will be the main vehicles for providing an economic environment appropriate to these objectives and for solving the related problems of the accumulation and allocation of scarce national resources.

5.2 The Plan seeks, among other things, to promote rapid economic growth. Such growth tends in turn to develop in the economy internal stresses and strains of various sorts. In fact, these stresses in some cases are in themselves the means of producing some of the economic and social changes necessary for more rapid development. At the same time, the instabilities which tend to be produced by rapid economic growth are a potential danger to the attainment of the objectives of the Plan itself. An effective development programme must thus take account of both the potential benefits and the potential dangers of the unstabilising forces in the economy.

Fiscal Policy

5.3 Fiscal policy encompasses in its broadest meaning all of the means by which Government raises revenue, determines its level of expenditure, manages the public debt and influences the level of aggregate demand. Although in the past fiscal policy was concentrated on keeping public expenditure at a minimum, and raising the needed revenue in the most convenient and least painful way, now it is almost universally recognised that fiscal policy should also seek positively to stimulate economic development. It will also play a central role in achieving the major Plan objective of improving the distribution of income. Countries in the early stages of development are aware that the desired level of investment can seldom be achieved on a pay-as-you-go basis. The extensive public expenditure programme envisaged in this Plan inevitably requires a substantial measure of debt financing, and debt management therefore becomes important.

5.4 As for the tax system itself, it must not merely provide for the raising of a given amount of Government revenue. It should in fact be devised with a number of other objectives in view. It will first of all be an important weapon to achieve a more equitable distribution of income among various groups in the population. This is most notably recognised as one function of the personal income tax, which, if it is progressive in nature, will tax more highly those groups in the society with the greatest ability to pay. As already indicated, a leading objective of Development Plan VI is to accomplish precisely this, and the Government is reviewing the tax structure with the intention of introducing modifications during the period of the Plan. Since it is the objective of the Government to build a tax programme that will produce not only sufficient revenue to serve the expanding needs of the ordinary or recurrent budget, but also to permit a substantial surplus to be applied to the Government's investment programme, it is clear that the tax system will have to be geared to produce substantially higher levels of revenue during the next five years than during the previous Plan period.

5.5 It is moreover clearly recognised that the tax structure can be and should be used as an implement of economic development. Thus, while company profits will be taxed at a given level, special allowances and temporary tax 'holidays' will continue to be used and to be refined so as to provide special incentives for appropriate investment in given fields important to economic development. Consideration will be given to devising ways within the tax structure to encourage the bringing of idle resources into economic production, and to discourage the holding of potentially productive assets for speculative gain. Ways in which the tax system may be used to give special incentives to Fiji producers capable of developing new export markets or expanding present levels of exports will also be examined.

5.6 In Fiji, as in most economies heavily dependent upon foreign trade, the customs tariff is an important source of public revenue. It is recognised, however, that customs duties can and do exercise a very important influence upon economic development. Remission of customs duties in cases where new enterprises need to be encouraged or in cases where imported materials become component parts of export products is already granted by the Government. In other circumstances customs duties may be imposed for the purpose of giving protection to new local industries still in the early stages of their development. It is intended during the period of the Plan to keep the whole matter of customs duties under constant review with the purpose of securing from this mechanism the maximum possible assistance to economic development. A tariff review board or committee will be established to make continuing surveys of the possibilities in this field.[1]

Monetary Policy

5.7 Traditionally, Governments seek to ensure economic stability in part by influencing the supply of money (currency and bank deposits) and hence the level of economic activity. In times of excess demand and incipient inflation bank credit expansion is curtailed and interest rates are allowed to rise; in periods of low activity the opposite course is followed. In an 'open' economy such as Fiji, where currency is issued and retired against foreign exchange, and where facilities for the bank credit extension to borrowers are closely affected by the balance of payments, traditional monetary controls are more difficult to apply. However, possibilities do exist for a strengthening of the Government's role in influencing credit flows and monetary expansion and contraction, and steps in this direction are intended during the Plan period. Measures of this type will eventually be implemented by the proposed monetary authority.

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[1] For a fuller discussion of trade policy see Chapter 6.

5.8 The present Currency Board, which functions simply as a 'window' to issue and redeem currency as needed, will be transformed, as mentioned above, into a monetary authority with wider powers and functions. It is expected that a broader range of services to banks in the issue and redemption of currency will enable them to meet the wishes of the public more effectively and economically than at present. The improved range of services will seek, among other things, to accommodate outlying areas more effectively. Similarly, the new institution will assist in simplifying and improving inter-bank clearing arrangements through the maintenance of appropriate accounts for this purpose, as well as for the easy redemption and issuance of currency. The authority will also act as an agent for the Government in the management of the debt, and may assist in the establishment of a local market for treasury bills, Government stock, and other approved securities. It may also, as an agent for the Government, administer exchange controls. Consideration will be given to expanding the functions of the authority over time to permit it gradually to act as a central bank in the full sense.

Interest Rate Policy

5.9 Interest rates, which basically reflect the relative demand for and supply of loanable funds, play a significant role in the development process. The level of rates will affect to some degree both the decisions of people to save and decisions of borrowers who wish to acquire funds for investment. In the larger countries, the control of interest rates is regarded as a significant weapon for influencing the pace of growth of the economy. In Fiji, because of its small size and close connections with foreign financial centres, this is less true. It is still possible, however, for the Government in various ways to exert influence upon prevailing rates of interest, and close attention to this factor is expected during the Plan period. The new monetary authority may be expected to include this problem within its field of focus.

The Role of Financial Institutions

5.10 As an economy grows in sophistication and complexity, there is an increasing role for the so-called financial intermediaries — specialist organisations operating in the financial sector functionally independent of Government. These intermediaries have already been developing in Fiji and their importance will increase rapidly in the future. It is thus increasingly necessary for Government to concern itself with their roles and over the period of DPVI it will be necessary to review these roles in the context of broader national priorities and policy objectives, especially in the fiscal and monetary spheres.

5.11 Financial institutions currently existing in Fiji include the following: Post Office Savings Bank (POSB), Fiji Development Bank, Fiji National Provident Fund (FNPF), commercial banks, credit unions, Co-operative Department banking scheme, Fiji Development Fund Board and insurance companies. Two specialised bodies, the Housing Authority and Home Finance Company, provide finance for housing purposes. The former is discussed in detail in Chapter 19.

5.12 Each intermediary has a specialised function, but all have in common the role of channelling financial resources from one sector of the economy to another. Government, if it seeks to influence the economy, must by definition equally seek to influence the activities of these intermediaries. A monetary policy is meaningless without influence over bank credit levels, and a carefully formulated programme of investment priorities is weakened if substantial volumes of other investment funds are made available without regard to national priorities. It must equally be a matter of concern to Government that scarce domestic savings are channelled into productive local investment rather than held less productively abroad or even aiding the financing of other developing countries' investment programmes.

5.13 To these ends, Government will need to consider appropriate ways and means to ensure that the main financial institutions in both the private and the public sectors are following policies consistent with Plan objectives. In essence, there are two central concerns of Government over the period of DPVI and beyond which relate crucially to the role of these financial institutions, namely:

(i) to ensure maximum domestic investment of locally derived savings;

(ii) to ensure maximum co-ordination in terms of investment priorities between the various domestic sources of funds.

5.14 The Fiji National Provident Fund has a growing role, especially with the proposed extensions to its membership coverage. In mid-1970 it held assets totalling some $10.3 million, about two-thirds invested with Government or statutory bodies and one-third in private sector mortgage loans. It is proposed that future lending will be divided equally between Government and the Housing Authority on the one hand and the private sector on the other. Over the period of DPVI, investment resources of the FNPF will total some $33 million. It is thus clear that the FNPF will become a major source of private sector investment funds, perhaps even exceeding the role of the Development Bank .Since Government can only seek to indirectly influence private investment a key responsibility is placed upon the FNPF and the Development Bank to be continuously conscious of national priorities in their lending policies. The FNPF and the Development Bank must at least informally co-ordinate their lending policies. To the extent that specialist appraisal skills are concentrated within the Bank, the FNPF may need to seek technical advice from the Bank and in some cases it may be most appropriate for the two institutions jointly to assist the financing of particular projects.

5.15 The Fiji Development Bank has been accorded a key role in sponsoring private sector investment in the Fiji economy. It possesses substantial resources provided by Government and expects to supplement these during DPVI by further funds raised from the public or made available by international financial institutions. The Bank must continuously seek in its lending policies to maximise the social and economic well-being of Fiji; it is not merely a bank seeking safe and profitable investments, but a key instrument in achieving the policy objectives of DPVI. It is to be hoped that the Bank will develop increasing technical expertise both in initial appraisal and continuing extension and other follow-up services to borrowers. Wherever appropriate, the Bank intends to seek equity involvement in new projects, especially those partially overseas financed or controlled, to ensure a meaningful economic benefit to Fiji as well as the hoped for profits to the investors. In the context of agricultural lending, it may be appropriate to make separate accounting provisions so that Government can if it so desires pay a subsidy, create special provisions for input credit, crop insurance, etc., or otherwise use the Development Bank as its agent in implementing special policies to assist this key sector of the economy.

5.16 Five commercial banks now operate in Fiji, all foreign-controlled. In the first half of 1970, total assets averaged about $37 million of which nearly $12 million (30 per cent) was held abroad in foreign banks. These banks also operate savings banks which have deposits totalling close to $16 million (i.e. substantially larger than the POSB), of which roughly half was deposited with trading banks and somewhat over one-third held in Fiji Government and local government bonds.

5.17 The commercial banks will be significantly affected by the creation of the central monetary authority, which at some stage in its development will be empowered to influence the nature and structure of assets held by the commercial banks. The need for such large near-cash foreign holdings may well be diminished and, hence, there should be a greater availability of local investment funds without transgressing the tenets of good banking practice.

5.18 The Post Office Savings Bank had deposits in 1969 of about $4.5 million. At the end of 1968, it held domestic investments valued at $1.92 million and overseas investments totalling $2.43 million. The Bank's basic Ordinance currently places a limit on local investment. The POSB has a wide coverage through its network of agencies and is a principal channel for mobilising small, especially rural, savings.

5.19 Credit unions and Co-operative thrift societies contribute significantly to the mobilisation of savings in Fiji. There are about 400 credit unions with resources of some $10 million, effectively channelling savings of depositor members to borrowers. Bad debts are low despite a policy of maximising lendings. In addition, there are numerous thrift societies organised under the Co-operatives Law, and steps are currently under way, with Government assistance, to group these societies under a new Co-operative central bank. It is to be hoped that over time the credit unions and the Co-operatives will increasingly co-ordinate their activities.

5.20 The Fiji Development Fund Board provides a modest but important service to coconut producers by lending from the compulsory cess on copra sales. These savings are released to the producer for strictly approved expenditures, including productive investment, payment of school fees and provision of housing.

5.21 Insurance companies are well established in Fiji and have accumulated substantial resources. These resources, of which the component held locally totalled some $15.2 million in 1968, are predominantly related to life insurance activities. Roughly two-thirds of these local resources were invested in Government securities. Government is anxious that these growing resources should continue to be held locally and to contribute to productive investment within the policy criteria of the Plan.

Prices and Incomes Policies

5.22 The successful implementation of the Plan depends to a considerable extent on the movements of both prices and incomes during the next five years. This is particularly true for the Plan's two major objectives — to increase employment and improve the distribution of income. Broadly the main objectives of prices and incomes policies are as follows : first, to avoid too rapid a rate of inflation, which can seriously damage the economy's ability to develop. Second, to ensure that the movements of prices relative to each other do not result in an unsatisfactory allocation of resources. Third, to moderate widening income disparities, a major objective of the Plan, movements of all incomes and prices must be of central concern. Fourth, to avoid excessively rapid increases in wages and salaries, which could speed up the urban drift and, if unrelated to productivity, stimulate inflation.

5.23 In essence, a prices and incomes policy must seek to bring actual prices and incomes closer to their equilibrium level in a perfect, free market; profit, rent, wage and price must come to reflect more closely relative contributions and costs to the economic well-being of Fiji rather than the relative monopoly power of the suppliers of entrepreneurship, property, labour and goods. The policy, thus, has not only the role of ensuring a favourable climate for the development of the Fiji economy but also that of optimising the distribution of resources and rewards betwee nthe various sub-components and sub-sectors of the economy.

5.24 **Prices.** Throughout the 1965-70 period prices have increased at a modest rate averaging three per cent per annum. Table 5.1 shows the yearly movements.

Table 5.1 : Price Index [1]

(1965 = 100)

	1965	1966	1967	1968	1969	1970 [2]
Retail/Consumer Prices	100.0	100.6	102.2	102.8	111.2	115.7

1 — This index uses the Consumer Price Index weights throughout.
2 — Based on data for the first five months.

5.25 Available data do not show conclusively whether the price increases shown in Table 5.1 resulted primarily from rising import prices or rather from rising costs and prices for locally produced goods and services. Observation suggests that both elements have been present. Since Fiji is an 'open' economy, a substantial portion of goods and services required come from foreign sources, and for these categories there is little that domestic policy can do to control the resulting impact on the price level other than seeking to minimise any monopoly effects. For certain other goods and services which are produced locally, but for which imports may be substituted, any rapid rise in domestic prices would cause buyers to shift to cheaper imports, with the results being shown not in a price level rise but an increase in the trade deficit. For a third category of domestically produced goods and services imports are no substitute and therefore these prices are largely determined internally. This is particularly true for the output of the construction and services sectors and to a lesser extent of the agricultural sector. An increase in demand for the products of these sectors cannot be fully met through an increase in imports. The consequent inflationary effect is one over which some influence can be exercised if necessary.

5.26 Although the average rate of inflation in the 1965-70 period was modest, price increases since 1966 have become increasingly rapid. resulting in an estimated increase of four per cent in 1970. This disturbing trend could become a serious threat to the successful implementation of the Plan. While direct price controls are not likely to be justified, it may be necessary early in the Plan period to dampen the growth of demand by fiscal measures.

5.27 Supply shortages and low supply elasticities can also contribute to rising prices. Programmes designed to increase the output of the various sectors can reduce this type of inflationary pressure.

5.28 **Incomes.** Table 5.2 shows the estimated distribution of Gross Domestic Product by type of income for the years 1965 and 1970 and projections for 1975.

Table 5.2 : Gross Domestic Product, by Tyne of Income, 1965-75

(per cent share)

	1965	1970	1975
Wages and Salaries	34.3	37.6	38.6
Income from Unincorporated Enterprises			
— private businesses and estates	24.2	22.0	22.4
— rural households	15.0	12.1	9.8
Gross Operating Profits			
— companies	14.9	14.4	15.0
— savings of public enterprises	1.6	1.7	1.8
Government Income from Property	2.6	2.9	2.8
Other Property Income			
— rents	0.5	1.6	1.7
— income from home ownership	6.9	7.7	8.0
Gross Domestic Product	100.0	100.0	100.0

5.29 As can be seen from the table, during the period from 1965-1970 wages and salaries rapidly increased their share of GDP, primarily at the expense of income from unincorporated enterprises, of which self-employed farmers form the major component. In the same period rents increased their share of GDP most rapidly while the gross operating profits of companies represented a slightly declining share. This latter movement, however, is heavily weighted by the sugar processing industry, non-sugar processing companies having actually increased their share of GDP.

5.30 These changes in the shares of GDP are indicative of increasing disparities in the distribution of income. It is likely that profits have risen faster than per capita salaries, that per capita salaries have risen faster than per capita wages, and that farmers' incomes have risen more slowly than other incomes. A major objective of the Plan is to slow down this trend which has resulted in a widening gap between average urban and average rural incomes. If the targets for 1975 shown in Table 5.2 are achieved, this will represent a considerable moderation of recent trends towards increasing inequalities of incomes. The wage and salary guidelines which will have to be followed to achieve the Plan targets are discussed below. Tax changes discussed earlier in this chapter will also be required to reach the targets.

5.31 The distribution of income is by no means the only criterion in determining acceptable increases in wages and salaries. Consideration must also be given to the problems of inflation and increased unemployment that can arise through excessive increases in wages and salaries. Table 5.3 shows how wages have moved since 1965.

Table 5.3 : All-Industry Money Wage Index, 1965-69

(1965 = 100)

	1965	1966	1967	1968	1969
Wages	100.0	108.3	111.0	120.4	127.1

Notes : 1. Index is weighted by 1965 sectoral employment throughout.
2. Up to 1967 this index primarily measures earnings; thereafter it reflects changes in wage rates.

5.32 As can be seen from the table, money wages have risen at an average of 6.2 per cent per annum between 1965 and 1969. These average movements hide considerable differences between the various industrial sectors. Wages in the construction, Government and other services sectors having risen more rapidly than in all other sectors, while wages in the agricultural sector increased at the slowest rate.

5.33 In real terms wages rose between 1965 and 1969 by an average of 3.5 per cent per annum. This is slightly in excess of estimated increases in productivity,[1] and combined with the fact that the most rapid wage increases have generally been in those sectors for which imports are no substitute, indicates that certain wage increases have contributed to the internally generated inflationary pressure. The central cause of this inflationary pressure has been the rapid growth of activity in the construction sector which has been aggravated by problems of increasing its capacity due to certain skill shortages. The programme to remedy these skill shortages is therefore an important element in mitigating future inflationary effects due to this factor.

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[1] Defined throughout this section as output per man year.

5.34 **Wage and Salary Policy.** In order to contain inflation, increase employment and reduce the pace at which income disparities are increasing it will be necessary for real wage rate and salary increases not to exceed three per cent per annum during the period of the Plan. This limit is set by the estimated average annual increase in productivity in the economy as a whole. Not all firms or industries will be able to make wage awards of this order, because in some sectors increases in productivity will be below the national average. Thus if the maximum limit is not exceeded, increases in real wage rates for the economy should average somewhat less than three per cent.

5.35 Money wage and salary rates may have to be allowed to rise faster than real rates, if the price level is rising. Under these circumstances, the acceptable limit on wage and salary rate increases in any one year becomes the sum of productivity increases and the cost of living increase that has taken place during the past year.

5.36 Such a policy must, however, be pursued with caution, because of the interaction between wages and salaries and prices. If wage increases in excess of productivity are widespread, they inevitably tend to push up costs and therefore prices further, with a possible "spiral" effect. Such increases may adversely affect both internal and external terms of trade. Internally, excessive wage increases can raise the prices of wage goods and services relative to other goods and services. Such a shift would tend to widen the gap between the real incomes of farmers and of wage earners. Externally, excessive price increases can erode the competitive position of certain exports. Sugar and copra will continue to be the dominant commodity exports throughout the Plan period and their prices are largely determined by international agreement and by competitive world markets. Thus wage increases cannot be passed on in the form of higher export prices. However, for a number of other export items excessive wage increases could lead to an erosion of Fiji's external competitive position. These possible movements in the internal and external terms of trade run counter to major Plan objectives; namely, to limit increasing inequalities in income and to boost exports. Thus if price increases persist the salary and wage guideline will have to be reviewed and appropriate corrective policy measures implemented. It is, however, of overriding importance that changes in wage rates become more effectively linked with changes in productivity.

5.37 **Profits.** Any analysis of the behaviour of prices and incomes must take account of the significance of business enterprise profits which essentially represent a payment for entrepreneurship and the use of scarce capital. Profits by their nature are less susceptible to guidelines in the manner of those suggested for wages and salaries, but clearly their level and share in national income must be of continuing concern to Government especially via their influence on price levels and the attainment of the objectives of the Plan. Obviously fiscal policy can have a significant role in influencing these factors. As in all free enterprise systems, competition must also be relied upon to keep profits within reasonable levels.

5.38 **Fostering Competition.** The ability of the price system to respond in a constructive way to changing economic conditions in a private enterprise economy such as Fiji depends in part upon the prevalence of competition. It is therefore necessary to insure against monopolistic and other restrictive tendencies. While in certain cases the problem of monopoly control can be attacked through legislation and other forms of regulation, perhaps the most practical approach is a programme of aid and assistance to small and new businesses to enable them to compete effectively with established firms. The Government will keep this objective in mind during the Plan period and will utilise all appropriate means to promote an atmosphere of healthy competition, in both the industrial and commercial fields.

The Problem of Inflation

5.39 An intensive development effort involving a high level of investment inevitably incurs the danger of creating an inflationary situation, where a rapid rise in prices may defeat the main objectives of the whole development programme. Where the main engine of inflation is too rapid a rise in personal incomes, its manifestation may be either rising prices in the local market, as buyers bid for relatively scarce supplies, or a sharp increase in imports for consumption which will worsen the balance of payments and deplete the country's reserves of foreign exchange. Either development is to be avoided, and the policies discussed in this chapter must be oriented to this end.

5.40 Appropriate tax provisions can contribute significantly to the avoidance of inflation. So also can monetary and credit policies. As already mentioned, tariffs may play a part in curtailing demand for imports of consumer goods when necessary. An efficient and low cost system of local production and distribution of goods depends in part on the maintenance of an atmosphere of vigorous competition.

5.41 Under conditions of expanding demand for labour and other resources, the rate at which wages and other incomes are allowed to grow is an important element in inflation control

5.42 In the broadest sense, economic progress without inflation is best ensured by effective attention to all the factors that improve productivity. It is only in this way that an expanded output of goods and services at comparatively stable prices can be achieved.

CHAPTER 6

EXTERNAL TRADE AND THE BALANCE OF PAYMENTS

Fiji is heavily dependent on its external trade. The pace and character of economic development will therefore be significantly determined by forces outside its direct control. Capital goods for the investment programme have to be purchased from overseas. A substantial proportion of raw materials for manufacturing industry and of consumption goods are imported. To this extent the country is very exposed to price movements of these imports and to changes in freight rates.

6.2 Financing needed for imports obviously depends on available foreign exchange. The volume and prices of goods and services sold to foreign buyers are therefore of prime importance. A substantial proportion of Fiji's population depends directly on the export sector for employment, income and livelihood. In order to increase the volume of employment and to ensure a rising level of per caput income, diversification and widening of export markets at favourable prices are necessary.

6.3 Table 6.1 illustrates the 'open' nature of the economy of Fiji. Imports of goods and services are expected to be of the order of 51 per cent of Gross National Product for the year 1970. This percentage ratio has tended to rise in recent years. Similarly, the proportions of total export proceeds to Gross Domestic Product have been high.

Table 6.1 : Foreign Trade in the Fiji Economy, 1965-70

(percentages)

Year	Commodity Exports (f.o.b.) to GDP	Exports of Goods and Services to GDP	Commodity Imports (f.o.b.) to GNP	Imports of Goods and Services to GNP
	(%)	(%)	(%)	(%)
1965	28.8	41.1	37.0	49.6
1966	25.6	38.6	30.0	43.2
1967	25.6	39.5	31.9	43.2
1968	26.4	42.8	35.0	47.4
1969	26.3	44.8	36.5	49.2
1970	24.8	45.3	38.4	51.7

Notes : GDP and GNP are given in market prices.

The Direction of Trade

6.4 The share of Fiji's imports by countries of origin over the decade beginning in 1960 is shown in Table 6.2.

6.5 Fiji's share of imports from preference countries has tended to decline over the last ten years. In 1960 imports from these countries made up more than 77 per cent of total imports.

Table 6.2 : Imports, Distribution by Source.

(per cent share)

Year	U.K.	Australia	New Zealand	Canada	Hong Kong	Malaysia and Singapore	Rest of Preference Area	U.S.A.	Japan	E.E.C.	Rest of Non-pref. Area	Total Imports	of which Preference Area
1960	25.6	27.8	8.0	3.8	3.2	0.5	8.8	2.8	6.5	1.8	12.2	100.0	77.7
1961	28.4	27.1	7.7	2.4	3.6	1.7	7.9	2.8	7.8	1.9	8.8	100.0	78.8
1962	27.4	28.0	7.5	2.4	2.8	1.8	7.1	3.8	8.0	2.6	8.8	100.0	77.0
1963	23.5	28.6	7.1	1.3	3.7	2.8	8.5	3.3	10.1	2.8	8.3	100.0	75.5
1964	21.6	29.0	7.0	2.2	3.3	2.5	6.5	3.6	13.6	2.1	8.6	100.0	72.1
1965	23.4	29.4	8.1	2.4	2.7	2.1	6.4	3.9	12.7	2.4	9.4	100.0	74.5
1966	20.5	27.8	7.9	1.6	3.2	3.9	5.8	5.5	14.3	3.4	6.1	100.0	70.7
1967	17.2	27.2	7.9	1.9	3.8	4.6	6.4	5.7	15.4	3.8	6.7	100.0	69.0
1968	21.3	26.3	9.4	1.6	3.1	3.2	5.8	5.1	12.8	3.1	8.3	100.0	70.7
1969	19.9	25.3	9.3	1.1	3.6	3.7	5.5	4.7	14.2	2.7	10.0	100.0	68.4

In 1969 this ratio had slowly declined to about 68 per cent. Over the same period the share of imports from the United Kingdom fell from about 26 per cent to 20 per cent. Australia is still the most important supplier of imports to Fiji, furnishing slightly more than 25 per cent. Australia did not devalue in 1967 and the slight fall in the share of Australian imported goods for the years 1968 and 1969 may be partially due to the devaluation of the Fiji dollar with respect to the Australian dollar. However, most of Fiji's importing businesses have very close ties with Australian parent companies so that the share of imports from Australia is not expected to fall within the coming years.

6.6 Areas within the Pacific Basin are increasing their importance as suppliers of Fiji's imports. The share of imports from the United States rose from 2.8 per cent in 1960 to 4.7 per cent in 1969, and Japan has become the third most important supplier of imported goods. Its share of total imports rose from 6.5 per cent in 1960 to more than 14 per cent in 1969. The rising share of Japanese imports has been influenced by the booming tourist industry which has a rapidly growing demand for Japanese duty-free consumer durable goods. Other Japanese manufactured goods have maintained their competitive positions in spite of the high non-preference tariff they face within the local market.

6.7 Imports from Hong Kong, Malaysia and Singapore have grown faster than total imports in recent years. In 1960 Fiji's imports from these countries contributed about four per cent of the total. By 1969 this figure had risen to over seven per cent.

6.8 Table 6.3 shows the percentage distribution of Fiji's exports by country of destination over the last ten years. The United Kingdom remains the most important market for Fiji's sugar and copra products. Continued access to this market will be of vital importance to Fiji during the coming years.

6.9 The United States has rapidly grown in importance as an export market for sugar. Fiji's quota under the American Sugar Act for the year 1970 is slightly more than 44,000 short tons. In 1960 the USA absorbed only about one per cent of Fiji's exports. By 1969 this figure had risen to over 16 per cent.

6.10 Exports to the European Economic Community (EEC) are relatively insignificant at the present time. Copra cake and meal exported to West Germany is currently the most important single export item to the EEC.

6.11 Fiji runs substantial deficits in her trade with both Australia and Japan. Useful efforts could be made during the Plan period to improve upon this unfavourable state of affairs.

Broad Objectives of Trade Policy

6.12 Over the Development Plan VI period, the Government will make every attempt to ensure that :

Table 6.3 : Exports, Distribution by Destination

(per cent share)

Year	UK	Australia	New Zealand	Canada	Rest of Preference Area	Japan	USA	EEC	Rest of Non-pref Area	Total Exports	of which Preference Area
1960	48.0	9.0	9.4	15.5	9.7	4.6	0.9	1.3	1.6	100.0	91.6
1961	47.6	13.1	10.8	14.3	6.3	3.8	0.7	1.8	1.6	100.0	92.1
1962	41.4	10.5	14.6	9.6	5.9	4.3	4.1	7.8	1.8	100.0	82.0
1963	45.1	9.4	2.8	16.5	4.7	2.8	12.4	5.3	1.0	100.0	78.5
1964	40.1	7.5	13.8	11.9	9.3	1.7	9.2	3.9	2.6	100.0	82.6
1965	45.3	10.5	6.9	[illegible]	6.7	2.8	13.1	3.0	2.2	100.0	78.9
1966	49.3	12.6	3.7	6.7	7.1	1.8	14.3	1.5	3.0	100.0	79.4
1967	44.4	13.3	[illegible]	6.3	7.0	4.7	15.4	0.7	2.6	100.0	76.6
1968	41.6	12.3	[illegible]	6.9	8.5	4.5	15.0	1.0	4.5	100.0	75.0
1969	36.5	10.9	5.8	9.8	8.9	3.8	16.6	1.0	6.7	100.0	71.9

(i) a healthy balance of payments situation consistent with the need for accelerated development will be maintained;

(ii) both export and internal markets are widened and export items diversified in order to provide opportunities for increased employment and income in Fiji.

6.13 The achievement of the above objectives requires the adoption of the following programme:

(i) exports will be vigorously promoted and high priority will be accorded to agricultural and manufacturing activities which have export potential;

(ii) measures and policies designed to improve the competitiveness of exports will be pursued;

(iii) internal and external marketing channels will be improved;

(iv) every attempt will be made to expand the existing markets and to tap new ones;

(v) local import-substituting industries which have potential economic viability in the long run will be given encouragement and assistance.

Principal Exports

6.14 **Sugar.** The sugar industry has traditionally played a vital role in the Fiji economy. In past years it has provided the 'engine' of growth. Its dynamism, because of institutional and marketing limitations on the world markets, has somewhat dissipated itself in recent years. However, it is still currently the largest sector in agriculture and the mainstay of Fiji's exports to overseas markets.

6.15 The contribution of sugar and sugar products to total export proceeds has fluctuated around 66 per cent over recent years. The industry contributes about 20 per cent of Fiji's GDP.

6.16 The high concentration of Fiji's exports at the present time is a potential source of weakness. Sugar, like many other primary products of importance to under-developed countries, tends to suffer from over-production. The world demand for sugar does not grow as fast as incomes in the major sugar consuming countries of the world. Moreover, competition from beet sugar in the developed countries is keen. Because of fluctuating world production and relatively static demand, international prices tend to fluctuate. This tendency, with the associated uncertainty, are matters of concern to Fiji.

6.17 The conclusion of the latest International Sugar Agreement in 1968 and the resulting rise in international free market prices for sugar was a welcome development. Historically, however, international commodity agreements have a record of failure. The tendency for over-production suggests that there will be a strong depressive force on the long-run price movement for this commodity. This perhaps emphasises the fact that while Fiji may get short-term relief through the International Sugar Agreement, in the long-run it must diversify its exports and widen its overseas markets.

6.18 Under the Commonwealth Sugar Agreement (CSA) Fiji has a guaranteed outlet for about 140,000 tons of sugar at prices well above free market prices. This is effectively a direct subsidy from the British taxpayers to the sugar industry and indirectly to the Fiji Government and the rest of the economy. The current eight-year term of the CSA will end in 1974.

6.19 The possibility of British entry into the EEC is a cause of concern to Fiji. The Common Agricultural Policy of the EEC provides, inter alia, for self sufficiency in sugar production within the Community. At the present time the EEC is more than self sufficient in sugar. This year, for instance, it is estimated that the production of sugar will exceed consumption by more than one million metric tons.

6.20 Imports of agricultural products into the EEC are regulated by a system of variable levies. This means that the selling price of Fiji sugar within the Community will be very high. Should Britain join the EEC, high sugar prices within the Community will induce British farmers to produce more sugar. Moreover, other EEC members with surplus sugar production will find a ready market in Britain, which has traditionally been a deficit sugar producer. Britain's entry into the EEC with early and complete adherence to the Common Agricultural Policy would mean a loss to Fiji of its present preferential prices and guaranteed outlet. This event would be little short of disastrous for Fiji sugar.

6.21 It is heartening that Britain has already declared that it will make every effort to make special arrangements for the particular problems of Commonwealth sugar producers during its forthcoming negotiations. Such arrangements will not be easy to achieve, but there are in fact precedents for exempting specified quantities of imports from Associated States from the variable import levy.

6.22 Fiji's quota under the American Sugar Act has risen in recent years, reaching about 44,000 short tons for 1970. However, it must be recognised that the future size of this quota is susceptible to changing international relations. Improvements in relations between Cuba and the USA, for instance, would introduce some uncertainties for the continuing access at favourable prices of Fiji sugar to the American market.

6.23 **Copra Products.** Fiji exports its coconut oil to the United Kingdom. Copra cake and meal, used in the animal feed industry, is exported to West Germany. Exports of coconut products are expected to increase substantially over the Plan period. The coconut subsidy scheme financed by the British Government provided the impetus for increased plantings in the last few years. Most of these new trees are expected to start bearing within the next five years.

6.24 The marketing problems of the copra industry are broadly similar to those of sugar. The demand for copra products, like sugar, tend not to rise as fast as world income. Coconut oil is only one of the many fats and oils sold on the world markets. This implies that coconut oils could be substituted by other types of oil if copra prices rose to high levels. World prices for copra have fluctuated with changing supply and demand of copra oil and substitutes in recent years. In the main, the fluctuating world supply, together with fairly static demand has been responsible for the fluctuations in price. Thus Fiji's export receipts from copra are heavily susceptible to events taking place within the major producers of copra and its substitutes. Fluctuations in copra production in the Philippines, the largest world producer, or in palm oil in Nigeria, for instance, tend to have fairly immediate repercussions on the prices received for copra products.

6.25 Britain's proposed entry into the EEC is also a cause of concern for this industry. Fiji's coconut oil presently enjoys duty free entry into the British market, and continued access to this market or the enlarged EEC is of vital importance. However, the Common External Tariff of the EEC on certain tropical commodities, including bananas and vegetable oils, is very high. These tariffs are levied in order to protect the exports of the tropical Associate members of the Community. It is apparent, therefore, that in the absence of special arrangements Fiji and other Commonwealth copra producers will suffer substantial damage to their copra industries in the event of British entry into the Common Market.

6.26 Fiji will, in the coming years, investigate possibilities for widening the export markets for copra products. The United States and Japan are major world importers of coconut products. Fiji's substantial trade deficit with Japan could provide leverage for negotiating more favourable entry of Fiji copra products into the Japanese market. The preferential entry of Philippine copra products into the American market will come to an end in 1973, and small producers such as Fiji should then be able to compete on an equal footing in that important market.

6.27 Another development of importance is the consideration currently being given to the establishment of a large coconut dessicating plant in Fiji. The planned initial capacity of this plant is about 10 million lbs. per annum. This plant is specifically designed to meet the high standards required in the American market. This market has grown in recent years, and it is expected that both demand and prices will continue to be very buoyant in the coming years.

6.28 Besides providing an opportunity for extending the export market for copra commodities, the establishment of this new industry is a move in the right direction of diversifying Fiji's export mix. Export diversification is essential if the continuing long-term growth of much needed foreign exchange is to be ensured.

6.29 **Gold.** Gold is the third most important export item. Its percentage contribution to total export receipts has ranged between about seven to eleven per cent during the last ten years. World gold prices showed some buoyancy in 1968 and early 1969, but more recent developments give little reason for optimism about the short-term future of this industry. In the longer run, increasing industrial demand for gold may strengthen the world market.

6.30 **Bananas.** Fiji's bananas are exported primarily to New Zealand. Over the last six years banana exports contributed about one per cent of total annual export receipts. The long-term potential for increased banana exports appear to be bright, as demand in the developed countries is buoyant. Indeed studies indicate that the demand for bananas in these countries will tend to rise at least as fast as national income.

6.31 Banana production has been affected by hurricanes and disease problems in recent years, and exports in 1969 amounted to only 90,000 cases. It is hoped to increase this to about 265,000 cases by 1975.

6.32 **Timber.** Timber exports account for slightly less than one per cent of total annual export receipts. However, the long run potential for this export item is bright and its contribution to total export receipts is expected to rise in the coming years. There are two important reasons for this optimism. Firstly, the demand for timber in the markets of many developed and under-developed countries tends to rise at least as fast as national income. Secondly, on the supply side, it is probable that Fiji will embark on an ambitious tree planting programme during the Plan period. There are firm plans to raise the planting rate from 4,500 acres during the initial year of the Plan to 6,000 acres in 1975, and this may be greatly expanded if the results of a feasibility study now under way are favourable. Moreover, increasing attention will be given to the building up of a good reputation for indigenous timber in the overseas markets. Research on improved techniques of timber preservation and seasoning will therefore carry high priority during the coming years.

6.33 **Manufactured Goods.** The growth in exports of manufactures is encouraging. Some of the more important manufactured exports are biscuits, cigarettes, cement, paint, clothing, canned meat and galvanised corrugated sheets and plates. Most of these manufactures are exported to countries within the South Pacific region. As industrial development progresses and output of manufactured goods increases, Fiji will concentrate on securing an increasing outlet for her manufactures in the more competitive markets of the developed countries as well as in the markets of other less developed nations. Consistent with this objective, the two per cent tax on exports was abolished in 1970 for all manufactured products except sugar and coconut oil.

6.34 Fiji's industrial development programme gives emphasis to encouraging manufacturing which, while having an import substituting role, will also have an export potential. This policy recognises that the world demand for manufactures is in general much more buoyant than those of primary agricultural products on which the economy so heavily depends at the present time.

Export Promotion

6.35 Fiji's export promotion programme recognises that promoting the sales of local products in overseas markets is not an easy task. Close co-operation between the Government and the private sector at all levels will be maintained. People with extensive specialised training and wide experience in the export and other business fields will be needed to make the programme successful. Perhaps most important, business management must become more market- and export-oriented in its thinking.

6.36 The programme also recognises that the following factors must be studied closely and their solutions formulated if Fiji's export receipts are to rise substantially over the coming years :

(i) domestic output of commodities and services which have an export market must be increased;

(ii) an increasing proportion of such domestic output must be made available for exports;

(iii) efficiency and cost reductions in the export sector must be continuously encouraged in order to increase the international competitiveness of Fiji's goods and services;

(iv) producers and traders must be motivated to seek export markets after the internal market is reasonably satisfied;

(v) the efficiency in the marketing of goods and services in the overseas markets must improve over time;

(vi) credit, insurance and transport facilities must be made available to the exporter at reasonable cost;

(vii) for the import-based exporter, the imported inputs must be made available with ease;

(viii) the Fiji Government must do all it can to reduce barriers to its exports such as tariff, quota and other indirect taxes in overseas markets.

6.37 A marketing division has recently been set up and is now located in the Ministry of Commerce and Industry. Because of the importance of marketing to the future economic development of Fiji, the marketing division will be strengthened during the DPVI period so that its functions will include the following :

(i) to undertake a systematic study of foreign markets. Information on the future trend in demand in the various overseas markets for different commodities both manufactured and agricultural will be gathered, assessed, and made available to local industries and farmers through existing channels;

(ii) to advise on measures for improving quality standards and packaging of export products;

(iii) to study and advise on incentives and facilities required for the promotion of exports;

(iii) to co-ordinate with other sections of Government such as the Central Planning Office in drawing the attention of Government to the importance for export marketing of such broad developments as price and wage movements, exchange rate relationships, etc.;

(v) to co-operate with other sections of Government in accumulating information on tariff structures of countries which are of export interest to Fiji.

6.38 The marketing division will thus be in a position to advise the Ministry and the private sector on a strategy of active export promotion. Such a strategy will map out the mix, timing and geographic distribution of the following :

(i) bilateral trade negotiations and agreements;
(ii) invitations to potential and existing foreign importers to come and inspect the range of local production in Fiji;
(iii) the sending out of trade delegations to promote Fiji's products in various countries;
(iv) participation in international exhibitions and fairs;
(v) incorporation of trade representative posts with Fiji's tourist offices and the proposed Fiji Consulates within the countries of the Pacific Basin.

6.39 It is apparent that very close co-ordination, not only among the various Ministries within the public sector but between Government and the private sector will be necessary for a successful export promotion programme. The possibility of strengthening the marketing organisation further through establishing an Export Advisory Council for which the marketing division will act as a secretariat will be kept under review. Such a Council could play an important role in advising and motivating the numerous sectors of the economy whose collective enthusiasm and co-operation are absolutely vital for a successful programme of increasing Fiji's exports during the coming years.

Regional Trade

6.40 With an eye to closer integration in the future reciprocal trade amongst the less developed countries of the South Pacific will be actively promoted by Fiji during the Plan period. Fiji's exports to these countries, especially of manufactures, have increased substantially within recent years. Opportunities also exist for these countries to export their products to the Fiji market. Contrary to popular thinking, some degree of complementarity exists among the economies of the region.

6.41 The problems of shipping, payments and other necessary infrastructure will be examined. Fiji will also work towards the formulation of a *modus operandi* which will ensure that increased co-operation in the fields of trade will be of mutual benefit to the countries of the region.

6.42 The existence of the Pacific Islands Producers Association (PIPA) already forms a nucleus upon which closer and wider co-operation could be built. PIPA's present area of co-operation is mainly in the bulk marketing of the region's bananas in the New Zealand Market. The feeling that closer co-operation is important for the development of the region is therefore already well developed.

Pacific Basin Trade

6.43 It was pointed out earlier that there has been a noticeable shift in Fiji's trade toward the Pacific Basin. This trend is expected to continue. The developed countries of the region, Australia, Japan, Canada, USA and New Zealand will be the targets for much of Fiji's export promotion drive in the next few years. The potential for increased exports to the less developed members of the region will also be investigated.

6.44 An increasing proportion of Fiji's capital goods, inputs and consumer goods will also be imported from within the Pacific Basin. In cases where this country runs substantial trade deficits, negotiations will be undertaken to try to arrive at an improved trading relationship acceptable to both countries.

Imports

6.45 The recent rate of growth of imports has been high. Indeed imports grew faster than Gross Domestic Product during the last few years. Between 1960 and 1969, for instance, total imports including re-exports grew at an average annual rate of almost eight per cent. Over the same period, retained imports grew at about 8.9 per cent per annum while re-exports, excluding sales to tourists of duty-free goods, grew at an average yearly rate of about 6.5 per cent. The growth in re-exports emphasises the increasing importance of Fiji as a staging post for trade within the South Pacific region.

6.46 An interesting development in recent years has been the escalating growth of duty-free imports. Consumer durable goods were first allowed to come in free of duty in 1963. This scheme was justified on the grounds that it would provide an added attraction for tourism. Since 1963 the imports of duty-free consumer durable goods have grown at an average annual rate of about 18 per cent.

6.47 The percentage composition of retained imports by broad economic categories for the last seven years is shown in Table 6.4.

Table 6.4 : Composition of Imports by Broad Economic Categories

(per cent share)

	1963	1964	1965	1966	1967	1968	1969
Food, Beverage and Tobacco	27.8	24.7	26.0	26.3	27.0	23.7	23.2
Industrial Supplies[1]	16.2	16.9	16.5	17.9	15.1	16.2	17.5
Investment Goods	30.6	36.4	36.9	32.6	32.8	34.9	34.5
— Machinery and Equipment	20.0	24.6	23.1	21.2	23.0	24.6	24.8
Construction Materials	10.6	11.8	13.8	11.4	9.8	10.3	9.7
Consumer Goods (non-food)	25.4	22.0	20.6	23.2	25.1	25.2	24.8
Durable	7.6	6.2	6.2	6.9	6.9	7.3	7.6
Non- and Semi-durable	17.8	15.8	14.4	16.3	18.2	17.9	17.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] — fuel, etc.

6.48 The estimated purchases of duty-free consumer durable goods by tourists are excluded from Table 6.4. Imports of retained non-food consumer durables have tended to maintain their share of total imports during the last seven years. The same is true for other non-food consumer goods. The imports of non-food consumer goods have therefore grown at about the same rate as that of total retained imports; a growth rate which is higher than that of GDP. This means that Fiji's propensity to import non-food consumer goods is high.

6.49 The propensity to consume imported goods tends to rise as people ascend the income 'ladder'. Imports of non-food consumer goods are projected to grow at about 12 per cent per annum over the DPVI period. Government will, during the Plan period, watch this development closely. Should the high rate of growth of non-food consumer goods become inconsistent with the objective of maintaining a healthy balance of payments position, then some form of control may have to be introduced.

6.50 The high growth rate of non-food consumer goods, which make up about 25 per cent of total imports, suggests that opportunities exist for import-substituting industries in certain lines of consumer durable and in the production of non-durable goods. Government will, however, ensure that, should the control of imports of certain non-essential consumer goods become necessary for balance of payments reasons, misallocation of internal resources towards the internal production of such non-essential imports is not encouraged.

6.51 The share of machinery and equipment for investment rose from 20 per cent in 1963 to almost 25 per cent in 1969. This is a healthy development. It underlines Fiji's heavy reliance on foreign exchange for increased capital accumulation. It also supports the observation, made elsewhere in the Plan, that the share of investment in GDP has risen steadily during the last few years. The share of imports of machinery and equipment in total imports is expected to rise during the next five years.

6.52 The share of construction materials in total imports has been relatively steady during the past seven years. In view of the large investment programme envisaged for DPVI and its substantial building and construction content, imports of construction materials are expected to continue to maintain their share of total imports.

6.53 The imports of industrial supplies grew at least as fast as total retained imports. During DPVI their growth rate is expected to be more than eight per cent annually.

6.54 Beverages and tobacco had a declining share of total retained imports. This is a result of the rising local production of tobacco and tobacco manufactures. Food imports also had a declining share of total imports. However, Fiji is still very heavily dependent on imported foodstuffs, these items accounting for about 20 per cent of total retained imports. The Plan aims at an accelerated programme of local production of certain foodstuffs. Processing and canning of agricultural products for the local and export markets have been allocated high priorities. Moreover, near self sufficiency in rice within the Plan is now an important objective of the planned agricultural programme. The Plan therefore envisages a substantial decline in the share of food items in total retained imports.

The Tariff Structure

6.55 Fiji is a member of the Commonwealth Preference Area. This accounts for the double column tariff, by which goods originating within the Commonwealth Preference Area enter at preferential rates. In return, Fiji's exports receive certain preferential duty treatment in the markets of other Commonwealth countries.

6.56 A new customs tariff based on the Brussels Nomenclature was introduced in January 1969. This was a radical change from the type of customs tariff used previously. As a consequence, goods are now classified as to type rather than end-use. Simultaneously, Fiji adopted the new Standard International Trade Classification.

6.57 The Legislative Council has recently approved major changes in the tariff structure. Duties on machinery and equipment and other imported inputs from both the preference areas and non-preference areas have been substantially reduced, thus improving the competitive position of local industries in the local market. It is expected that these changes will be instrumental in accelerating the pace of import substitution in agriculture and manufacturing. Export-oriented industries will also benefit.

6.58 Government intends during the Plan period to set up a Tariff Review Board. The Board will, *inter alia,* undertake a continuing review of the tariff structure. In particular it will assess whether alterations in the structure should be introduced to meet the changing circumstances of Fiji's future economic development. The establishment of the Board is a recognition that the tariff structure, when handled carefully and with foresight, provides a powerful tool for assisting the process of economic development.

6.59 The Board will also make assessments of the extent to which revenue receipts would be eroded through tariff concessions. The Board will therefore be continually faced with a 'trade off' problem between an erosion in present Government revenue and possible increased economic activity and Government revenue in the future.

6.60 Over the last ten years customs receipts regularly contributed between 40 per cent and 50 per cent of total Government revenue. There has, however, been a declining proportion of customs receipts to total Government revenue. The ratio of customs receipts to total imports has also fallen over the same period. This trend is caused by the changing pattern of Fiji's imports. The proportion of duty-free imports, industrial supplies and investment goods has risen substantially. These goods carry very low duties or none at all. Since the Plan envisages further rises in the shares of these commodities in total imports, the percentage contribution of customs receipts to total revenue will fall further during the next five years. This trend is unavoidable because of Government's heavy commitment to future economic development. Government will therefore come to rely more and more on direct taxes to provide the required flexibility in the tax system.

6.61 Fiji's manufactured goods, like those of other less developed countries, presently face high effective rates of protection in the markets of the advanced countries of the world. The effective rates of protection in advanced countries are particularly high against non-sophisticated manufactures for which countries like Fiji have favourable production opportunities. Fiji will do all it can through all channels such as the United Nations Conference on Trade and Development and bilateral negotiations to try and secure more favourable conditions of entry for its expected increase in exports of manufactures.

6.62 Fiji will consider the advantages of joining the General Agreement on Tariffs and Trade (GATT). Entry into GATT requires the approval of two-thirds of the contracting members. Substantial benefits could accrue to Fiji through the operation of the most favoured nation clause.

The Balance of Payments

6.63 Table 6.5 and 6.6 shows the balance of payments picture for the period 1965-1969. Estimates for 1970 and projections for 1975 are also shown. The figures for 1975 are in 1970 prices. The other sets of figures are in current prices.

Table 6.5 : Balance of Payments, Goods and Services, 1965-70 and 1975

($ million, current prices)

	1965	1966	1967	1968	1969	1970	1975[1]
Receipts							
Exports (f.o.b.)	35.1	31.7	34.9	39.9	43.8	45.1	52.1
Non-Monetary Gold	3.1	3.0	3.1	3.5	3.4	3.2	3.2
Freight and Insurance	0.9	1.0	0.9	0.9	1.0	1.0	1.1
Other Transportation	6.0	5.8	6.4	8.3	8.9	9.5	14.6
Foreign Travel	7.5	8.6	11.1	15.6	20.9	26.7	82.5
Investment Income	1.4	1.7	1.1	1.5	1.5	1.6	1.7
Government Services	1.2	1.2	0.9	1.0	1.1	1.2	1.8
Other Services (n.e.s.)	0.7	1.0	1.3	1.1	1.3	1.6	2.5
Total, Goods and Services	55.9	54.0	59.7	71.8	81.9	89.9	159.5
Payments							
Imports (f.o.b.)	47.2	39.7	45.7	55.4	63.1	72.1	126.9
Freight and Insurance	10.3	9.8	9.9	12.3	13.9	15.8	27.7
Other Transportation	3.0	3.3	3.0	4.0	4.4	4.9	7.3
Foreign Travel	1.1	2.2	1.4	1.6	1.7	1.8	2.8
Investment Income	6.6	5.0	6.3	7.5	8.0	8.7	12.8
Government Services	0.3	0.3	0.4	0.4	0.5	0.6	1.2
Other Services (n.e.s.)	1.4	1.8	1.4	1.3	1.6	1.9	3.0
Total, Goods and Services	69.9	62.1	68.1	82.5	93.2	105.8	181.7

1 — 1970 prices.

Table 6.6 : Balance of Payments, Combined Receipt and Payments

($ million, current prices)

	1965	1966	1967	1968	1969	1970	1975[1]
Commodity Trade Balance[2]	– 9.0	– 5.0	– 7.7	–12.0	–15.9	–23.8	–71.6
Goods and Services Balance	–14.0	– 8.1	– 8.4	–10.7	–11.3	–15.9	–22.2
Total Capital Inflow (private and public)	14.0	8.1	8.4	10.7	11.3	15.9	22.2
Commodity Trade Balance[3]	–19.3	–14.8	–17.6	–24.3	–29.8	–39.6	–99.3
Net Income paid abroad	– 5.2	– 3.3	– 5.2	– 6.0	– 6.5	– 7.1	–11.1

1 — 1970 prices. 2 — imports valued f.o.b. 3 — imports valued c.i.f.

6.64 As shown in Table 6.6, the commodity trade balance has worsened steadily during the last five years. During Development Plan VI the trade deficit is expected to widen further and is expected to reach almost $100 million in 1975. Many factors contribute to the widening trade deficit. Firstly, the preoccupation with accelerated development means that the need for imported capital goods and inputs into industry will rise even further in the coming years. Secondly, the booming tourist industry generates an escalating demand for imported items such as duty-free goods and other inputs into the tourist sector. Thirdly, as development proceeds and National Income per head rises, the consumption pattern of the population will tend more and more to be import-oriented. In particular the demand for luxury-type goods, which in the main tend to be imported, will rise as more and more people enter the middle and higher income groups. Particular attention will be paid by Government to this expected upsurge in demand for luxury-type consumption goods during the coming years. Fiscal measures designed to curb this trend may be introduced if the balance of payments position deteriorates.

6.65 Fiji's dependence on the tourist sector as a foreign exchange earner will rise substantially during the coming years. In 1965 gross tourist receipts made up about 13.5 per cent of total receipts from goods and services. In 1970 this figure is estimated to be as high as 29 per cent, and by 1975 tourism is projected to contribute slightly more than 50 per cent of total foreign exchange receipts from goods and services. However, because of the very high import content of the tourist sector net receipts tend to be substantially reduced. Government will therefore do all it can to encourage the tourist sector to purchase an increasing proportion of its inputs internally, especially food, to enable the net foreign exchange receipts from this sector to rise proportionately.

6.66 Should receipts from tourism fall short of the projected levels during DPVI, Government will introduce further measures to conserve and generate foreign exchange in the other sectors.

6.67 The rising level of net income paid abroad reflects the increasing trend in capital inflow into Fiji. The dependence on foreign capital, both private and public, will rise during the Plan period. Government does not consider it necessary or desirable to regulate repatriation of profits and capital by foreign enterprises. Instead it will concentrate on building a framework and investment climate which will provide the necessary incentives for foreign investors to voluntarily plough their profits back into further expansion.

6.68 Government looks on the balance of payments as a potentially serious bottleneck to future development. An ample supply of foreign exchange is needed to finance the importing of capital goods, industrial inputs and essential consumer goods.

6.69 A deteriorating balance of payments situation could exacerbate the rate of inflation in Fiji. Normally, increased local demand would quickly result in increased imports to satisfy that demand. However, if foreign exchange becomes scarce, local demand cannot be quickly satisfied, especially since the supply of internal substitutes will take time to adjust upwards, and prices will therefore rise. Inflation discourages exports and increases the demand for imports. It therefore tends to be associated with the possibility of future devaluation. Because of this, capital outflow is encouraged and capital inflow discouraged. The problem will therefore tend to intensify itself and could lead to the ultimate slowing down of the rate of capital formation.

6.70 Because of the potential serious repercussions on the development effort, Government will keep a close watch on the future movements in the balance of payments position. It will introduce policies and measures, whenever the need arises, to ensure that available foreign exchange is kept consistent with future development needs.

CHAPTER 7

REGIONAL, URBAN AND RURAL DEVELOPMENT

While previous chapters have tended to concentrate on the economy as a whole, this chapter seeks to focus attention on some aspects of regional development, particularly the social and economic divergences between rural and urban areas. These divergences, resulting from regional variations in geographical character and resource endowment, are primarily manifested in wide variations in standards of living. More specifically they occur as considerable differences in cash earnings, in the opportunities for employment, the provision of education, health and other government services and in the availability of recreational and cultural facilities.

7.2 The physical integration of the islands is clearly hampered by geographical factors and in consequence transport facilities are often inadequate or costly or both. There are no easy solutions to this problem but Government recognises the vital need to structurally integrate the widely dispersed communities. To this end Development Plan VI allocates substantial funds to the improvement and creation of new transport facilities. This will involve a continuing programme of rural roading, the construction of the trans-insular road in Vanua Levu and the reconstruction of Fiji's major road link from Suva to Nadi. The expansion and improvement of shipping and air services is essential to improving inter-island transport. Policies to this end include increased roading on the outer islands, a programme of jetty building and the construction of new airfields.

7.3 In addition to the problems of raising agricultural output and productivity there are regional problems arising from the concentration of single crops in specific areas, which are in effect one crop regions. Thus the continued well being of the sugar cane areas is almost wholly dependent on externally determined international agreements. The problems of the copra producing areas relate to the difficulties of diversification in those widely dispersed and isolated areas. The further problem of integrating subsistence farmers into the cash economy is also substantially regional in nature. In recognition of these problematic regional concentrations Government policy seeks to encourage agricultural diversification.

7.4 Industrial development is a relatively recent phenomenon and is almost wholly concentrated in a limited number of urban centres, principally Suva. Although this concentration is often necessary for the efficient provision of ancillary services and to facilitate inter-linked activities, there are a number of undesirable consequences in terms of the excessive concentration of employment opportunities and the consequent over-rapid urban migration.

7.5 The distribution of certain Government services also shows significant variations between regions. For instance the majority of secondary school places are concentrated in the urban areas. Medical services, although widely spread via a network of rural health and nursing stations, are less accessible to the populations of isolated communities. Improved access to these and other public services is of particular concern to Government for the inhabitants of outlying islands.

7.6 The majority of regional disparities are paralleled by, and frequently result in, divergences between rural and urban areas. This disparity clearly coincides with different economic activities; agriculture dominates rural activities while in the towns a more diverse range of economic activities are carried out. The main symptom of this disparity is an accelerating net flow of people into the urban areas. This flow is reflected in the fact that the growth of population in urban areas is significantly higher than for the overall population. It is projected that Suva's population will grow at some three per cent per annum, while the other major population centres, Lautoka, Nadi and Labasa, will grow at some four per cent per annum. The detailed pattern of urban migration is uncertain but young people, and especially Fijians, appear to play a proportionately larger role in this inflow.

7.7 Although the causes of this flow are not fully understood, certain contributory factors can be identified. These factors can be divided into two broad groups; those which attract people to the urban areas, the 'pull' factors; and those that tend to displace people from the rural areas, the 'push' factors. Among the 'pull' factors that can be isolated are such attractions as the apparent prospect of employment, the availability of better social and recreational services and overall, the hope of a fuller and higher standard of living. The 'push' factors centre upon the apparent limited prospect for enhanced incomes especially in a situation of rapidly growing rural population. More generally the vision of improved prospects apparently offered by urban life can be attributed to aspirations acquired in the educational process.

7.8 Urbanisation, the bringing together of large groups of people, often from different backgrounds, creates the familiar physical problems of providing housing, water and sewerage facilities, electricity and other services. In addition it creates problems of adjustment to a new way of life. The urban dweller frequently becomes a focal point for relatives who visit or migrate to the urban areas. The consequent contact with the past can tend to inhibit an individual's adjustment to the new way of life. Traditional rural roles may be difficult to fulfil in the urban environment which builds houses and pays wages in accordance with the requirements of a small family unit.

7.9 In more detail, the problems associated with urbanisation take the following principal forms :

(i) lack of employment or job advancement opportunities and other causes of dissatisfaction with work conditions such as wages, lack of security often reflected in a high incidence of absenteeism;

(ii) coping with the transition to a wage-earning and cash economy including the right use of money, abuse of credit and other opportunities for unwise spending;

(iii) overcrowding of existing housing and ancillary facilities;

(iv) lack of adequate sport and recreation facilities to provide for the different pattern of leisure-time activities imposed in an urban setting;

(v) those of education, occupation and recreation resulting from the particularly young age-structure of the urban population;

(vi) the breakdown of traditional family status patterns and the conflict of values and aspirations;

(vii) differences between completely and incompletely urbanised communities — the long-settled and newly-arrived people.

7.10 No easy and complete solutions exist to these problems. However, many of the policies and programmes in the Plan are directed towards influencing the social and economic factors associated with urban-rural disparities. The main objectives of the Plan involve concentrating on increasing employment and ameliorating widening income disparities. More detailed programmes and policies such as those in agriculture, urban services, education, and so on are dealt with in the relevant chapters, but in addition some specific policies are outlined here.

7.11 In the towns much closer attention will be paid to physical planning at all levels. The orderly development of towns, the concentration of housing, the heavy density of traffic, disposal of waste and so on, can only be successfully accommodated by such planning. A major land-use Plan has been already prepared for the Suva region and a more detailed study centred on transportation in the Suva urban region is likely to be commissioned. There will be an increasing need for comparable studies in other urban areas. Physical planning at the national level will also require increased attention; specifically, the most urgent need is to ensure the orderly development of tourist facilities. To this end, the World Bank is to be requested to sponsor and organise the preparation of a comprehensive national tourism plan.

7.12 Government is increasingly conscious of the need to spread the benefits of economic development beyond the principal urban centres. To achieve this, encouragement will be given to tourist and manufacturing industries to site new ventures outside of their traditional locations. At present hotels are concentrated on the southern coast of Viti Levu. Future hotel developments in other areas, consistent with the proposed physical plan, will clearly benefit a wider section of the community. Similarly, industrial facilities need to be increasingly located within the constraints of efficient operation outside the two main centres, Suva and Lautoka, in order to provide new sources of income and employment in the smaller urban areas.

7.13 Many of the problems of urbanisation revolve around young people who are especially sensitive to the associated changes in habits and life styles.[1] The needs of young people who are no longer in school can primarily be met through the provision of satisfying forms of employment; the lack of such opportunities is perhaps a prime cause of the social and psychological problems of urban youth, and can ultimately lead to delinquency.

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[1] These problems are examined in Council Paper 39, 1961. Report of the Committee to study youth problems.

7.14 Voluntary organisations are successfully addressing themselves to these problems. Examples of this work include the YWCA and Nausori Youth Centre sponsored projects to provide vocational training in the manufacture of small handicrafts and the running of a wide range of youth clubs.

7.15 The Fiji National Youth Council has a central co-ordinating role. It has plans under which member bodies intend to extend their facilities by opening more youth clubs in urban areas, training youth leaders to work in new areas of population and expanding vocational training. Of particular interest is a proposal to set up neighbourhood youth groups to provide for youth away from town centres and nearer their own homes, the work of Farmers' Clubs and the Methodist Training Centre in training youth leaders for rural areas and the proposal to set up a volunteer movement for young people.

7.16 However, in much of this work the voluntary organisations require continued and expanded Government assistance.[1] Specifically they require aid with recurring staff and maintenance expenses (in addition to fund raising), a grant to match funds raised for specific projects (self-help schemes), training scholarships for youth leaders, help in setting up a volunteer movement for young people and the provision of professional instructors and leaders to assist in the organisation of projects.

7.17 Many of the requirements outlined above are principally concerned with mitigating and controlling the 'pull' factors of the urban-rural split. A central aim of Government policy is, however, to attack the root-causes of 'push' factors within the rural areas. This attack is spear-headed by the Rural Development Programme.

Rural Development Programme

7.18 The Rural Development programme has two principal aims; firstly, to increase the productive capacity and standard of life of the rural people by measures designed to promote the principle of community self-help; secondly, to provide a framework for representative leaders of all communities to share in the preparation, co-ordination and execution of a diverse range of projects included in district rural development programmes. These projects may be entirely self-help in character or entirely Government-executed and financed. Between these extremes, Government gives varying degrees of technical, financial, administrative or material assistance, depending on the project.

7.19 The programme started towards the end of 1969 with the formation of 15 locally-chosen non-Fijian advisory councils, replacing nominated committees, to parallel the 14 elected Provincial Councils for Fijians; the briefing in operations rooms of all these councillors on departmental programmes in their districts; the holding of a nation-wide series of village-level meetings to probe problems and propose projects, preceded by a press conference given by the Prime Minister; the inauguration of 18 district and four divisional rural development committees, chosen in equal numbers from within the advisory and provincial councils; and the determination by the new committees with the help of official agencies, of the projects to be included in 18 district rural development programmes for 1971. These programmes are set within a framework of what is practicable for Government departments, agencies or communities to aim to achieve with the resources available. They are depicted graphically on tracings over a base map in Red Books, or district book plans, approved by the National Development Committee and made known to the rural people through their chosen representatives and departmental field staff. These Red Books, which were completed at the same time as Development Plan VI, may be regarded as an integral part of it.

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[1] The forms that this assistance will take are outlined in Chapter 19.

7.20 There are two main areas of project activity in the evolving rural development programme. The first covers the type of project which may be regarded as being of a local government character, such as the provision of minor works, minor services and minor communications. Rural development committees can, with the assistance of the District and Fijian Administrations, the Public Works Department and some other agencies, examine these proposed (mostly aided self-help) projects and recommend priorities where relevant. Some progress has been made in 1970 in facilitating in this way the emergence of an acceptable form of non-racial rural local government based on the needs of the rural people. The embryonic institutional structure will require adequate trained staff and resources, and the guidance of a reorganised local administration to achieve self-sustaining growth, and progress will depend on a favourable political climate.

7.21 The second main area of project activity covered by district rural development programmes is more complex. It is comparatively straightforward to devise and execute such self-help schemes as village water supplies, community roading, foot-bridges and community centres. These are of a local government character and, as already suggested, can be readily brought within the comprehension of elected rural development committees. But decentralised planning of the co-ordinated development of the physical, natural and human resources of a division, which could make a major contribution to rural development, requires the provision of adequate technical information, well-qualified planning staff at divisional level in close contact with the Central Planning Office, and effective divisional teams to promote the co-ordination of Government and other agencies concerned with marketing, communications, agricultural innovations, credit, research, extension work, rural industry and land questions. Consideration will be given during DPVI to more decentralised planning to make the best possible use of the resources available and to consult more readily, with a view to eliciting a constructive response, the rural people affected by development proposals.

7.22 The post of Commissioner for Rural Development was established in mid-1969 to co-ordinate from the Prime Minister's Office the preparation of the 18 district rural development programmes. A small rural development secretariat has since grown up, bringing together the relevant policies and programmes of all the ministries and departments. With the completion of the preparation of DPVI, and the administrative and associated re-organisation following Independence, the secretariat could be shaped to help central Government to make a more co-ordinated and productive impact in rural development. It could become a focus, for example, of the many varied contributions to adult education and the establishment of multi-purpose training centres in the Divisions.

7.23 The Development Plan includes $1 million to support the rural development programme, in addition to the many separate sectoral provisions for rural development projects. Initially, these funds will be used mainly to aid small self-help minor works projects which provide permanent community assets outside existing departmental programmes. Peace Corps volunteers are being recruited to provide technical assistance. The funds may also be used to provide or augment much-needed resources, such as a small road-building unit for the Northern Division in 1971, to be operated by the Public Works Department in accordance with the approved district rural development programmes. In this way, a capability to carry out and maintain minor works and services could be transferred gradually to the rural development committees should they assume the role, status and responsibility of local government councils in the future.

7.24 The district rural development programmes should stimulate the provision of more community projects to meet felt needs and give life to comparatively new areas of activity such as 'town-planned' rural centres with integrated facilities for future townships, locally-oriented small scale rural industries and adult education of all kinds. Of equal importance, the rural people should experience a sence of closer participation in development planning and execution. The principal aims are likely to remain those of improving the effectiveness and range of measures for raising the productive capacity and standard of life of the rural people and the evolution of a popular form of comprehensive rural local government.

PART THREE

SECTORAL PLANS AND PROGRAMMES

CHAPTER 8

AGRICULTURE, FORESTRY AND FISHING

The successful development of the Fiji economy has been, and will continue to be, primarily dependent on the agricultural sector. In 1965, 33.6 per cent of Gross Domestic Product was generated in this sector. By 1970 the proportion had declined to 27.3 per cent and by 1975 it is expected to decline to 23.5 per cent. Nevertheless, to a large extent rapid development can only be achieved by progress in agriculture.

8.2 Agricultural production has fluctuated substantially over the years, mainly because of changes in sugar output and earnings and variable weather conditions. From 1950 to 1965 the output of this sector grew at an average of 6.4 per cent per annum at current prices. In real terms the growth of output probably did not exceed population growth.

8.3 The expansion of the Agriculture, Forestry and Fishing sector during the period of Development Plan V showed little progress. Although total output grew at an average of 3.6 per cent per annum in money terms, it only grew at 2.3 per cent per annum in real terms. Significantly the output of cash crops only increased at an annual average of around 1.5 per cent per annum in real terms. These rates compare with a DPV growth target of 5.4 per cent per annum for the sector. In addition there are signs that the number of subsistence farmers grew considerably.

8.4 This extremely disappointing performance was due mainly to a slump in sugar and copra production in 1966, when the output of these two main crops had fallen by 39 per cent from 1964. The domestic output of foodstuffs for local consumption rose faster than population growth. This probably reflects some substitution of domestically produced for imported foodstuffs. In particular, imports of rice and fresh and canned beef declined by 20 per cent per annum between 1966 and 1968. Although this was encouraging, the overall effect of import substitution was limited.

8.5 On the export side, sugar benefitted from favourable prices, and the value of sugar exports rose from $21 million in 1966 to $28 million in 1969. Exports of copra and copra products increased steadily during the DPV period, although they did not attain the high levels achieved prior to 1966. Banana exports fluctuated considerably, but overall the volume exported declined by 5.9 per cent per annum between 1966 and 1969. Exports of fruits and vegetables, particularly ginger, benefitted from expanding external markets.

8.6 The particularly poor performance of agriculture during DPV emphasises the need to devote far more attention to this sector in the future. The main objectives of Development Plan VI can only be achieved through the successful stimulation of agricultural development. In 1970, 51 per cent of the total labour force is estimated to be in the agricultural sector, which only generated some 27.3 per cent of GDP. Clearly the farmers of Fiji are, on average, the least well-off section of the population. To raise farmer incomes is therefore vital if income disparities are not to widen excessively. Equally, the drift t the towns and consequent increases in urban unemployment can only be reduced by making farming both more attractiv and more rewarding. To a certain extent the growth of th non-agricultural sectors of the economy is also dependent o raising farmer incomes, because farmers form the bulk of th potential domestic market for consumer goods. The growt of this market is thus significantly dependent on increasing th purchasing power of the rural population.

Agriculture

8.7 Agricultural policy during the period of Development Pla VI will concentrate on two major objectives; raising the income of farmers and increasing rural employment. The attainmen of these objectives will involve, among other things, increasin the value added of the whole sector from $48.4 million in 197 to $57.7 million in 1975, at 1970 prices, i.e. at an annual averag rate of 3.5 per cent.[1] By concentrating on the production o the main commodities which are currently being imported th problem of identifying suitable export markets will not be a serious during DPVI as it will become in the longer run. Th raising of farmer incomes will depend to a certain extent o how the terms of trade between farmers and other producer shift. It will also depend on the extent to which average annu output per farmer can be increased. Given the planned growt in value added, and that the number of people willing to remai active in the cash agricultural sector increases from an estimate 47,900 in 1970 to 58,300 in 1975, then output per man year wi rise at 0.5 per cent per annum. Thus both rural employmen and farmers' incomes will rise.

8.8 In a wider sense, the objective of agricultural development is to provide the rural population with a more meaningfu and satisfying way of life, with status and amenities mor comparable with those in urban areas. This will not only involve the attainment of the main objectives stated above, bu will also require the implementation of many other programme outlined in this Plan. The most notable of these are th creation of the National Marketing Authority; the progress o the Rural Development programme; the provision of increase rural infrastructure in the form of roads, jetties, water supplie and telecommunications; the extension of rural education an health facilities; and the effective implementation of fisca monetary and other policies designed to moderate increasin urban-rural disparities.

8.9 In essence the strategy for achieving the main objective of agricultural development will consist of an integrated set o programmes designed to improve existing farming method rather than to concentrate exclusively on expanding the farmin area. This strategy of intensification and crop diversificatio will necessitate the application of research, the provision o finance for credit, the introduction of improved techniques an improvements in the structure of marketing and distributio channels. The pursuit of this strategy does not imply that n new land will be brought into production because in many area

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1. These figures for value added include forestry and fishing.

it will involve a gradual transition from subsistence farming. Nor does the pursuit of this strategy imply that research into new crops will be abandoned, because of the continuing need to diversify existing farm output.

8.10 An essential element of the intensification strategy is the integration of diverse programmes. Only through a co-ordination of plans to improve techniques, markets, transport and storage facilities, availability of inputs and credit, and the provision of incentives, can agricultural development be stimulated. During the 1971-75 period it is planned to concentrate on certain commodities. For each of these the task will be to determine the appropriate mix of the factors mentioned above and to ensure that they are available to the farmer at the 'correct' time and in the 'correct' proportion. Naturally, the needs for each commodity will very according to location, the size of holdings, the skill of individual farmers and so on.

The Extension Service

8.11 The integration of the wide variety of inputs is of course vital at the level of the individual farmer. The farmer's ability to effectively integrate inputs is primarily determined by his skill. Indeed, the technical skill and managerial ability of the farmer are themselves essential inputs in farming. The productivity of an agricultural enterprise is primarily dependent on the many decisions taken by farmers from the time they decide to grow a certain crop to the time it is sold. It is the task of the Extension Division to modernise the decision-making process of the farmer and by so doing to enable him to take full advantage of available agricultural technology. Through the regular presence of extension personnel the farmer will be brought to be more receptive to newer techniques as they are proven and made available.

8.12 Agricultural extension may be described as a dynamic educational process aimed at changing the value and behaviour patterns of farming people so that they can successfully adapt to a continuously changing environment. To achieve the objectives of agricultural development it is necessary that the extension service gears itself not only to providing competently, accurate and relevant information, but also to using an educational process so that farmers are motivated to use this information. Farmer motivation is the pre-requisite for the adoption of modern agricultural technology.

8.13 The organisational structure of the Extension Division will be founded on rural based personnel in close and continuous contact with farm families, supported by specialist and supervisory staff at sub-provincial, provincial and divisional level. Such staff will be co-ordinated with the pattern of rural Government which is at present emerging. They will have increased responsibilities and therefore higher standards of selection and pre-service training will be needed. They will require appropriate pay, living conditions and status at their duty stations. They must have sufficient mobility and support to maintain regular contact with the farmers.

8.14 The Information Section will work as part of the Extension Division and fully support the extension programme.

Appropriate locally made films, pamphlets and market reports will be prepared, shown and distributed to farmers. Full use will be made of mass media, in particular rural radio broadcasts, as an important supporting factor in the agricultural development programme. These media should, however, not only be used for conveying information, but also to make the rural population aware of their vital role in developing the country and to infuse them with pride and the dignity of their position in the community.

8.15 The planned level and phasing of capital expenditure in the provision of expanded extension services is shown in Table 8.1. Of the total of $482,600, about 30 per cent will be applied to coconut cultivation, 15 per cent to rice, 12 per cent on livestock rearing, 12 per cent for administration and 10 per cent each on root crops and miscellaneous products. The remainder will be spent on bananas, cocoa, peanut, ginger and passion fruit cultivation.

Table 8.1 : Capital Expenditure Programme, Extension Services

($ thousand)

	1971	1972	1973	1974	1975	Total
Buildings	21.0	66.0	61.5	135.0	35.0	318.5
Vehicles	8.0	10.4	10.4	9.6	9.6	48.0
Equipment	46.0	24.0	24.0	10.0	10.0	114.0
Animal House, Garages	2.1	—	—	—	—	2.1
Total	77.1	100.4	95.9	154.6	54.6	482.6

The Research Programme

8.16 Research and extension activities are inseparable components of the same organisation between which there must be a continuous two-way flow of information. During the Plan period research will concentrate on the immediate problems facing agricultural production as identified by the Extension Division. Thus, research will not be aimed at furthering agricultural science in general. Research findings from foreign sources will be fed into the organisation and those that are relevant to domestic problems will be adopted and modified to suit domestic ecological, economic and social conditions.

8.17 Future research, therefore, will be based on an understanding of existing methods of agriculture and the constraints to which farmers are subject. It is essential for an understanding of these constraints that Government should conduct more agro-economic studies into existing farming systems and practices. The aim must be to increase the extent to which results are applied on the farms because at present, generally speaking, there is insufficient practical application of research findings.

8.18 The organisation of the Research Division will be centralised and multi-disciplinary. Where these have not already been established, research stations will be set up in the main ecological zones. It will also be necessary to establish new stations for certain crops, such as coconuts, so as to concentrate on particular types of farming activity. Table 8.2 shows the planned level and phasing of capital expenditure on research.

Table 8.2 : **Capital Expenditure Programme, Research**

($ thousand)

	1971	1972	1973	1974	1975	Total
Dry Zone Research Station						
— buildings	53.8	—	—	—	—	53.8
— vehicles	3.0	—	—	—	—	3.0
— equipment	2.0	—	—	—	—	2.0
Coconut Research Station						
— buildings	—	65.8	46.2	—	7.0	119.0
— vehicles and 1 DA tractor	—	23.8	0.3	2.7	—	26.8
— equipment	—	11.0	—	0.9	0.1	12.0
— land and siteworks	150.0	—	—	—	—	150.0
Reorganisation of Koronivia Research Station						
— buildings	—	—	105.0	65.0	—	170.0
— equipment	—	—	45.6	—	—	45.6
Development of Research Stations						
— sites and facilities	10.9	5.5	8.0	—	—	24.4
— land purchase	—	—	—	45.0	—	45.0
— equipment	9.5	6.5	13.0	11.5	12.5	53.0
Total	229.2	112.6	218.1	125.1	19.6	704.6

Agricultural Training

8.19 It is an essential need in any programme of agricultural development to be able to deploy a cadre of well trained and dedicated staff. At the graduate level the Government's needs can be met by staff already employed or at present training overseas and these can be augmented by overseas personnel either on consultancy or contract terms. However, it is at the sub-professional level, i.e. the level through which the programme is implemented on the ground, that the need is greatest. One role of the Fiji School of Agriculture (FSA) is to train such sub-professional staff and the School must be geared to the task of training them in the numbers required.

8.20 Another important function of FSA is in-service training. As the rural public is motivated to use improved technology, this will change the problems they face, so that new solutions will be required. Staff must be continually re-trained to cope with such new problems and situations. This training should be continuously evaluated and directed so as to meet changes in priorities and objectives. To increase the output of diploma students and to enlarge the capacity for in-service training, the FSA is to be further enlarged and developed during the Plan period.

8.21 As has been mentioned, farmer skill is an important determinant of agricultural productivity. It is essential that, in addition to improving the extension service, farmers should receive more training. It is planned to allocate $95.000 for this purpose. These funds will initially be used to provide grants to enable farmer training institutions, such as Navuso Agricultural School, to be expanded and improved. This may well involve the creation of a number of demonstration farms. The Department of Education also intends to allocate funds for this purpose as well as providing facilities for the teaching of rural studies in all rural primary, rural secondary and vocational schools. The planned level and phasing of capital expenditure on agricultural training services is shown in Table 8.3.

Table 8.3: Capital Expenditure Programme, Agricultural Training Services

($ thousand)

	1971	1972	1973	1974	1975	Total
Fiji School of Agriculture	—	—	—	94.0	100.0	194.0
In-Service Training	—	—	1.0	2.2	2.2	5.4
Farmer Training	15.0	20.0	20.0	20.0	20.0	95.0
Total	15.0	20.0	21.0	116.2	122.2	294.4

Veterinary and Regulatory Activities

8.22 Animal health, one of the areas of responsibility of the Veterinary Division, is closely related to animal production so that the closest liaison and co-ordination between the Veterinary and Extension Divisions is essential; and this will be maintained. Fiji is fortunate in being comparatively free from animal and plant diseases. It is essential therefore to guard rigidly against the introduction of serious animal and plant diseases and pests, particularly with the increasing mobility and volume of travellers. The Veterinary and Regulatory Division will be organised, staffed and equipped so as to perform efficiently the task of quarantine protection and enforcement of the appropriate laws which the Division administers. The planned level and phasing of capital expenditure on veterinary services is shown in Table 8.4.

Table 8.4: Capital Expenditure Programme, Veterinary Services

($ thousand)

	1971	1972	1973	1974	1975	Total
Buildings	—	20.0	30.0	40.0	50.0	140.0
Vehicles	7.0	3.3	3.8	2.5	2.5	19.1
Pathology Laboratory	7.5	—	—	—	—	7.5
Total	14.5	23.3	33.8	42.5	52.5	166.6

Marketing and Price Policy

8.23 There is no doubt that the creation of an efficient marketing system is the single most pressing requirement to stimulate agricultural production. Assurance that a market for increased output not only exists but can be reached at an economic cost is an essential factor of agricultural development. Dependable and competitive markets with, where possible, a realistic floor price will increase incentives to farmers to produce more.

8.24 In general it is the policy to encourage private enterprise to carry out the marketing of produce and to own and operate the necessary facilities. However, the marketing system must be kept under constant review and where it is evident that private enterprise cannot fulfil these functions efficiently Government must, through the appropriate agencies, intervene in the marketing system and where necessary provide the facilities, such as storage and transport, which are necessary for an efficient system.

8.25 Price support or minimum price guarantees may be necessary for certain commodities whilst others may require tariff protection from competing imports. Standardisation and the grading of produce will be introduced where appropriate and this will be of particular significance for crops destined for export. The plan to create a National Marketing Authority is outlined in Chapter 14.

Rural Credit

8.26 The availability of sufficient credit for agriculture is a very important element in the development programme. As more farmers move into the commercial sphere and also adopt modern techniques which largely depend on the use of purchased inputs, the demands for agricultural credit and in particular short-term production loans will increase very quickly. The present credit institutions as now constituted are not geared to the provision of this type of credit. Government will ensure that machinery is available to deal with this type of demand and be prepared to subsidise the servicing of these loans.

8.27 The types of loans, repayment arrangements, interest rates and security required will vary with the different types of crops and enterprises concerned, but the conditions applicable must fit the purpose of the loan. Rates of interest for agricultural loans will continue to be below normal commercial rates and Government will, if necessary, increasingly subsidise these rates. Consideration is currently being given as to how the Fiji Development Bank can expand and improve its activities in this field.

Financial Incentives

8.28 Even given adequate research and extension services and sufficient availability of credit it is seldom certain that farmers will use the assistance available. A most important factor is the relationship between the prices of the inputs and the prices of the products, over both of which the farmer has little or no control.

8.29 The price of the product can be affected by Government action such as price support. Prices to the farmer of certain inputs are currently being reduced by subsidies. Subsidies on inputs are useful where some strong inducement is initially needed to encourage their use or to persuade farmers to follow some farming practice which they would otherwise not be prepared to adopt. The Extension Service will provide information as to the subsidies required. Agricultural subsidies are not intended to be permanent but must be at rates sufficient to achieve their objective. The planned level and phasing of subsidies are shown in Table 8.5.

Table 8.5 : Capital Expenditure Programme, Subsidies
($ thousand)

	1971	1972	1973	1974	1975	Total
Fertilisers; Weedicides etc	172.0	232.4	307.2	382.6	455.4	1,549.6
Cocoa	5.0	5.0	6.0	6.0	6.0	28.0
Coconuts	237.8	227.5	194.3	182.1	159.9	1,001.6
Livestock	67.2	68.9	68.9	69.8	69.8	344.6
Total	482.0	533.8	576.4	640.5	691.1	2,923.8

8.30 In addition to subsidies, tax and tariff policies can hav a considerable effect on the economic circumstances withi which the farmer has to operate. They can affect the price he receives for his products, the prices he has to pay for hi inputs and capital equipment and also of course what he pay in direct tax.

8.31 Export taxes on all agricultural produce with the exception of sugar and coconut products have been removed. A regards the prices of goods which the farmer has to purchas the tariff structure will be designed so as to encourage investment and the use of recommended inputs in the agricultur sector.

8.32 In many developed countries concessions are given t farmers on direct taxation. Because of the nature of agricultur in Fiji it is evident that the best types of assistance for farmer are in the form of low interest rate loans, low tariffs on input appropriate levels of protection and subsidised inputs.

Irrigation

8.33 Agricultural development will require increased investment in the agricultural sector. Much of this will be of a privat nature, by the farmer himself, and Government policies such a cheap and subsidised credit and the tariff structure will b designed to encourage this. There are, however, types o investment which the farmer cannot undertake, nor is it appropriate that he should. A prime example of this is the provisio of irrigation and drainage. Government will, during the Pla period, undertake the construction of two large schemes mainl for the production of rice and also a number of other small schemes for a more varied range of crops.

8.34 The effects of irrigation on productivity will be considerable, and the increased production of rice as a substitut for imports will be of great benefit to the economy as a whol The farmers concerned, however, will also profit from th provision of irrigation and drainage and it is therefore appropriate that they should, from their increased production, repa to the Government a share of the running costs. The planne level and phasing of capital expenditure on irrigation scheme is shown in Table 8.6.

Table 8.6 : Capital Expenditure Programme, Irrigation Schemes

($ thousand)

	1971	1972	1973	1974	1975	Tota
Purchase of Equipment and Plant	300.0	—	—	—	—	300.0
Construction Costs						
— Navua	280.5	300.0	169.8	150.0	150.0	1,050.3
— Rewa	106.5	300.0	300.0	300.0	300.0	1,306.5
— Other Schemes	60.0	60.0	60.0	60.0	60.0	300.0
FAO/UNDP Rewa Project Counterpart Contribution	10.0	—	—	—	—	10.0
Minor Works	10.0	10.0	10.0	10.0	10.0	50.0
Total	767.0	670.0	539.8	520.0	520.0	3,016.8

Land Tenure

8.35 Land is of course one of the vital factors of production in agriculture and the tenurial system within which the farmer has to operate has a direct and important bearing on his actions and farming practices. Where the situation is one of a leasehold, Government must ensure that the tenurial system as far as the tenant is concerned gives security of tenure, and the right to compensation for improvements carried out with the landlord's consent. The rent paid for agricultural land should be fair to both landlord and tenant. The system must also ensure that the landlord is protected from misuse of the land by the tenant. It is in the national interest that arrangements for the use and occupation of the limited agricultural lands of Fiji be designed to preserve and develop their productivity, to guard against erosion and to encourage working them in such a manner that productivity increases rather than falls. The task ahead is to work towards the development of agricultural production in all its aspects so as to establish within an improved rural environment a farming community secure alike in its tenure and its place in society. This task will require the commitment of substantial financial resources and the total dedication of all those directly engaged in its achievement.

The Future of Agricultural Development

8.36 Table 8.7 shows the level and phasing of planned capital expenditure on all agricultural services. The total capital expenditure of $7,611,000 is about double that achieved in the DPV period.

Table 8.7 : Capital Expenditure Programme, Agricultural Services
($ thousand)

	1971	1972	1973	1974	1975	Total
Extension Services	77.1	100.4	95.9	154.6	54.6	482.6
Research Services	229.2	112.6	218.1	125.1	19.6	704.6
Agricultural Training	15.0	20.0	21.0	116.2	122.2	294.4
Veterinary Services	14.5	23.3	33.8	42.5	52.5	166.6
Subsidies	482.0	533.8	576.4	640.5	691.1	2,923.8
Irrigation	767.0	670.0	539.8	520.0	520.0	3,016.8
Quarters	22.2	—	—	—	—	22.2
Total	1,607.0	1,460.1	1,485.0	1,598.9	1,460.0	7,611.0

8.37 The commitment to a major development effort in the agricultural sector during the DPVI period recognises the vital part that this sector must play in achieving sound and balanced economic and social development, both in the immediate period and in the longer run. The problem has many facets and it is especially important during the next decade, during which earlier population trends will bring an unusually large number of people into the labour force. With limited possibilities for industrial growth, it is clear that the majority of these young workers must remain in the rural areas and find productive employment there. The major concentration of Government assistance must therefore be on raising farmer productivity and income through the integrated programme of extension, research, education, subsidy incentives and marketing aids discussed in the previous pages.

8.38 At the same time it is recognised that the farm problem is partly a social problem. To make rural occupations attractive it is necessary not only to increase income earning opportunities, but to raise the level of amenities available for rural life. The Government's new Rural Development Programme, which has fostered involvement of the population in development planning at the village level, and which offers concrete Government assistance to self-help projects of a mixed social and economic character, is designed directly to enhance the quality of rural life.[1] Improvements in such areas as health and education services and communications will also contribute to the same end.

8.39 The interdependence of urban and rural growth is obvious, and underlines the importance of ensuring that rural development does not lag too far behind. The major emphasis on improvements in marketing is again a recognition of the market opportunities offered by a growing urban population, if the appropriate institutions enabling the farmer to supply those markets can be brought into being.

8.40 **The Special Case of Sugar.** The dominance of the sugar sector in Fiji's agriculture raises special problems. While sugar cane production has in the past furnished a very important impetus to growth, it now has to be faced that this industry will at best remain static in the future. There is little that the Government can do about this, since the situation results from a world market condition that is unlikely to change for the better. In fact, the expiration of the Commonwealth Sugar Agreement in 1974 and the possible entry of Great Britain into the Common Market can serve only to raise some doubts about both the marketability of sugar and the price at which it can be sold in the longer run.

8.41 In the light of this, the growth target for agriculture in DPVI, set at 3.5 per cent annually (including forestry and fishing) has to be seen as an ambitious one, as it obviously requires a higher rate of growth for the non-sugar portions of the sector. More than this, the intensive development programme is clearly aimed at a greater diversification of agriculture in order gradually to lessen the dependence of the economy on sugar.

8.42 Diversification of agricultural crops must therefore remain a prime development objective not only for DPVI but for subsequent Plans. In the short run there is reason to believe that sugar can dependably be expected to continue as an important crop yielding good returns for a significant proportion of the rural community. In the long run, the development objective must be accelerated growth in other fields which will over time leave sugar in a less dominant position.

8.43 Besides market limitations the sugar industry will face in DPVI problems relating to changes in ownership and operational control of the industry. These problems arise from the intended withdrawal of the sugar-milling company that has operated in the Fiji sugar industry for close to ninety years. The intended withdrawal has been caused by a new contract for sharing of sugar proceeds between growers and the miller which the latter found financially unacceptable. For this reason the millers have stated their intention to withdraw after the 1972 season.

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[1] The rural development programme is outlined in Chapter 7.

8.44 Following this declaration by the miller the Government of Fiji has emphasised that it will see that the mills continue to operate after the 1972 season notwithstanding the withdrawal of the miller. Therefore, studies are now being made to determine an acceptable basis for future operations. The details and mechanics of such arrangements have yet to be negotiated. It could be said, however, that a change in ownership may involve Government in substantial additional financial responsibility not envisaged in the Plan.

Forestry

Despite unfavourable weather conditions and some difficulties in acquiring suitable land for afforestation during the last Plan period, the annual planting targets were all exceeded. Furthermore the increasing use of local timber and the encouraging high level of production have resulted in a decline in the value of timber imports from $1.1 million in 1965 to $0.2 million in 1969.

8.46 The great number of under-capitalised and inefficient sawmills has contributed to the production of low quality timber and high wastage. Further, the increasing number of mills has put a burden on the available natural forest resources.

8.47 Research findings in timber utilisation, silviculture, sawmilling and logging will form the foundation of consolidatory work over the DPVI period. The close liaison with overseas institutions on research and advice which has existed in the past will be maintained.

8.48 Greater local interest has recently been shown in forest development. Individual projects and some types of village schemes have been formed through the backing and efforts of the newly established Forestry Extension Division. To encourage private plantings, seedlings at subsidised rates and technical advice are being provided by the Department.

8.49 Conservation of soil fertility and the rehabilitation of eroded and felled areas are, and have been, fundamental duties of the Department. The planting of pines on reed, grass and fern areas for timber production, as in Lololo, also serves a conservation function.

8.50 Exports of sawn timber are at present a by-product of the local industry. The planned plantation programme allows for this to continue at the present level. Exports of round timber have been curtailed since 1964 and have been permitted only for the purpose of technical or marketing research.

8.51 The Department has been pursuing a very vigorous training programme for local personnel. The Forestry School has been reopened and this will assure a continuous supply of sub-professional staff. Overseas training at the professional level continues to expand.

Broad Constraints on Development

8.52 The progress of forest development has been, and will continue to be, determined largely by the following factors.

8.53 **Land.** The increasing reluctance of Fijian land-owners to lease their land for planting has been compensated in some ways by the increasing participation of individuals and some land-owning units in private plantings.

8.54 **Character of Indigenous Forests.** Though many types of timbers in these forests have in the past been rejected commercially, recent research into their properties and uses has brought about their wider acceptance. Because of the time lag in replanting, more control of felling is needed in order that forest resources are not prematurely exhausted. Furthermore intensive research on silviculture and timber utilisation needs to be carried out.

8.55 **Utilisation.** Poor dressing of local timber has contributed to the low utilisation in the commercial sector. Continued reliance on expert advice and greater commercial acceptance of local products has now become the guideline.

8.56 **Manpower.** The need for professional personnel for forest development has always been satisfied by overseas countries. With the progress now being made in the Department and the expected expansion over the Plan period, more trained local people will be required. The reopening of the Forestry School now sited at Lololo and the increasing use of overseas institutions by local personnel to obtain professional and technical qualifications will go a long way in meeting the requirements.

Policy Objectives

8.57 The basis of Fiji's Forest Policy is in Council Paper No. 5 of 1950. The salient points of that policy are :

(i) to protect and develop natural vegetation where its retention is necessary for climatic reasons and for the conservation of resources of soil and water necessary for good agriculture and to ensure adequate and continuous supplies of forest produce;

(ii) to develop the production of such timbers as can be produced economically and to provide a surplus for export;

(iii) to ensure the best use of all species of timber available, and to promote the use of the lesser known species;

(iv) to establish and promote an export trade in timber;

(v) to maintain and improve the fertility of the soil by preserving, and where necessary, extending the forest cover;

(vi) to check soil erosion and to recover areas already eroded, and

(vii) to provide and preserve amenities.

8.58 The more specific objectives for DPVI can be stated as follows :

(i) to continue with the planting programme to meet future domestic requirements and surplus for export;

(ii) to encourage private planting schemes, particularly in low-employment areas and in areas where private schemes can be worked in conjunction with the larger Government projects;

(iii) to increase timber exploitation until local requirements are satisfied;

(iv) to study problems of land acquisition, lease terms and forest reservations;

(v) to conduct intensive research covering sawmilling, silviculture, logging, utilisation and forest economics;

(vi) to accelerate training of local personnel at all levels, and

(vii) to provide amenities and recreation facilities.

Forest Development Strategy

8.59 Since the full scale investigation into the potential offered by forestry being carried out by a Food and Agricultural Organisation (FAO) Forestry Project team under the UN Development Programme will not be finalised until late 1972, the strategy adopted is one of maintaining the present level of activities and consolidation in the research division.

8.60 To satisfy local requirements the strategy will be to increase timber exploitation but at the same time to control the felling and sawmilling complexes in order to minimise wastage and ensure a high quality product. This will be achieved by reorganising the sawmilling and logging interests through licencing and improved technical standards in the industry.

8.61 As mentioned above one of the increasing and demanding functions of the Department is its extension service. Because of the problems discussed in paragraphs 8.52 to 8.56 above, this aspect of the departmental programme will be emphasised and expanded, since it deals mainly with individual small projects.

Forest Development Programme, 1971-75

8.62 Whatever proposals are put forward at this stage cannot be anything but short-term, as they are almost certain to be affected dramatically by the publication of the FAO project's findings. If large-scale expansion is recommended by FAO and this is implemented, the Department could be transformed from one of the secondary Government departments to one of the major departments in Fiji. There is a temptation to expand plantation programmes immediately, but this must be resisted until the FAO report is received. There are still too many imponderables to commit Fiji to an enlarged programme. Location of sites and market outlets are still under study and any new large programmes embarked upon could be a waste of funds and effort if they were not in accord with the findings of the feasibility study. In addition, the new schemes could prejudice or interfere with the successful implementation of future expansion if sites then required had been taken up by departmental schemes established with different objectives in mind. Thus, for the purpose of this Plan, departmental planting programmes are to be kept similar to existing rates for 1971-72, with only a moderate expansion thereafter. These programmes are designed for future internal timber requirements only, but as stated earlier it is anticipated that a new forestry plan will be necessary in the near future to accommodate FAO expansion proposals. In the meantime, the main activities of the Department are described below.

8.63 **Plantation Programmes.** The supply of timber for future internal requirements will be safeguarded by the establishment of plantations. Existing schemes will be continued, but the opening up of new stations will be avoided until the prospect for long-term planning for both the internal and export markets can be more clearly determined.

8.64 Softwood will be planted in the Western and Northern Divisions. Pinus caribaea will constitute the main species and the major scheme will be located at Lololo/Drasa, where 5,176 acres had already been established by 1970. Pine will also be planted at Seaqaqa, but land acquisition problems there may restrict acreages to between 500 to 1,000 acres per annum. Any short-term land difficulties can be alleviated in the Northern Division by transferring planting to Koroutari, where the Department already has a small area of pine.

8.65 In the first part of the Plan period, hardwood planting (mainly mahogany) will be confined to the Southern Division where there are three operative stations; namely, Naboutini and Galoa in Serua and Nukurua in Tailevu. The initial annual target is 2,000 acres, increasing to 3,000 acres in the latter stages of the Plan. Planting will be distributed between Serua and Tailevu, with emphasis on expansion in the former, where the roading system constructed by timber concessionaires can also be utilised by the Department for its plantation programmes.

8.66 As departmental roading is necessary at Nukura, this scheme will be gradually phased out in favour of Galoa and Naboutini, or possibly to the Northern Division where areas cleared by the Fiji Forest Industries operation will become available without incurring roading costs.

8.67 The tentative plantation programme for the 1971-75 period is shown in Table 8.8.

Table 8.8: Provisional Plantation Programme, 1971-75

(acres)

Species and Location	1971	1972	1973	1974	1975	Total
Mahogany						
— Galoa/Naboutini [1]	1,000	1,500	2,000	2,000	2,000	8,500
— Tailevu	1,000	500	—	—	—	1,500
— Vanua Levu [1]	—	—	—	500	1,000	1,500
Pine						
— Lololo	2,000	2,000	2,500	2,500	2,500	11,500
— Seaqaqa	500	750	500	500	500	2,750
Total	4,500	4,750	5,000	5,500	6,000	25,750

1 — the 1,500 acres shown for Vanua Levu in 1974-75 will be planted at Galoa/Naboutini if the latter area can accommodate the higher planting rate

8.68 **Extension Service.** The extension service has the joint objective of meeting the requirements of the villages and assisting private commercial planters. In the villages, the greatest demand is for wood fuel, building poles, fencing posts and sawn timber. Many districts, including outlying islands, are not favourably placed as regards present or future timber supplies, and inhabitants of these areas may wish to undertake some timber planting of their own. Such plantings would be for the supply of local village wood requirements rather than for large-scale commercial timber operations. Detailed investigations will be required as to the scale of planting needed to satisfy future requirements on a local basis. Thinnings from these plantations could also provide fuel, poles and posts.

8.69 Assistance provided will consist of supplying tree seedlings at a subsidised rate plus free transport to the nearest unloading site. Departmental staff will give all technical assistance possible, including selection of suitable sites, advice on planting and subsequent maintenance.

8.70 The tree species most suitable for planting will be pinus caribaea in dry talasiga areas and mahogany in some of the better sites in the wetter zones, although pine may also feature increasingly as a timber tree in the latter. Where poles and fencing posts are the main consideration, eucalyptus species will be favoured as they coppice easily and will not need replanting when felled.

8.71 Forestry extension activities should be directed to areas of greatest need as determined by Divisional Planning Committees, but, in general, it is considered these should be where supplies from existing forests or departmental plantation schemes are not readily available.

8.72 Assistance and advice will also be given to private commercial forest development. The establishment of timber plantations can be a sound investment and, provided some of the difficulties involved and the long-term nature of the investment are fully appreciated, private timber plantings in Fiji can and should be fostered.

8.73 An early decision has to be made, however, as to where the main effort in private commercial plantings should be directed. It could be argued that priority assistance should be given to those areas away from departmental schemes where there are ample labour and land resources which would be otherwise unemployed. On the other hand, the enthusiastic approach of certain people near departmental schemes cannot be lightly dismissed or ignored. If they are insistent on embarking on such schemes, the divisional development teams should give their support, but they should ensure, in consultation with the Department, that the schemes would form a genuine integral part of major schemes and are not blocks of forest which could create difficulties in the management of the surrounding departmental plantations.

8.74 **Licensing and Indigenous Timber Production.** The historical background of sawmilling and licensing and the circumstances whereby the Fijian land-owners have already lost the opportunity of setting up their own large-scale milling operations in the most favourable forest areas are known. In an attempt to redress the balance and at the same time to ensure that the existing sawmilling trade can operate at its maximum efficiency, the following guidelines will apply as regards timber and sawmilling licensing:

(i) pending results of the Land Resources Division timber enumeration (due in 1971), the granting of further long-term concession/licences will continue to be held in abeyance;

(ii) if enumeration data confirm that resources are limited, no further concession/licences will be given until such time as Fiji's own timber requirements cannot be met from existing exploitation;

(iii) when new concessions are required, the tender system will apply. An option to allow Fijian participation will be an integral part of all new concessions;

(iv) Fijian-owned concessions will be encouraged (and areas reserved for them) as soon as sufficient experience is obtained and the necessary capital becomes available;

(v) to accelerate improvements in the industry, firm action is required on the inefficient, undercapitalised mills. Annual timber licences will be granted only to those mills already possessing a licenced area;

(vi) annual timber licences will only be issued and renewed if a mill is prepared to meet the Department's minimum technical requirements under the Sawmill Regulations, 1968;

(vii) no licences will be issued to those mills which do not already possess one. The most effective way of ensuring that the Fijian land owners obtain the best terms possible for the timber sold from these leases, is to put out to tender those forest earmarked for agricultural clearing;

(viii) two exceptions are suggested to the 'tough-line' measures advocated above. The first would be for a small mill operating in an isolated area where the local people could not otherwise buy their timber requirements close at hand. In such cases, the Sawmilling Regulations would not be enforced strictly. In the second instance applications by Fijians to establish small mills dependent on log supplies from their own mataqali lands would be given sympathetic consideration. Again, the sawmilling regulations would not apply to their full extent.

8.75 **Timber Utilisation Research.** Existing schemes have already made provision for substantially improving utilisation facilities, and the estimates detailed for the 1971-75 Development Plan are aimed at the consolidation and optimum use of these improvements.

8.76 With the information now available on Fiji's timbers, future efforts will be aimed at the promotion of these timbers on the local market, by demonstration, publicity and exhibition.

8.77 Recent increases in demand for local timbers have unfortunately been accompanied by various marketing problems, some of which can be traced back to the milling industry. With a few exceptions most local sawmills lack modern equipment, are underpowered and operate uneconomically. The best use is not being made of a valuable natural commodity. The situation will be improved by careful licensing of sawmills, compulsory preservative treatment and the introduction of grading rules, but in addition direct technical assistance is urgently required. There is an immediate need for improving existing facilities to obtain the best possible product.

8.78 Longer-term improvements will involve a gradual transition from circular to band mills. For the first time technical assistance will be available to the trade. Efforts will yield significant benefits by improving overall standards. Logging methods will also require investigation to ensure that mills, once adequately equipped, can be ensured continuity of log supplies.

8.79 Basic timber research investigations will continue with assistance from overseas organisations, including the Division of Forest Products, Commonwealth Scientific and Industrial Research Organisation, the Tropical Products Institute and the Commonwealth Forestry Institute. More emphasis will be given to the exotic species. Those not sufficiently plentiful to justify full overseas testing will undergo limited local investigation.

8.80 The Department's timber utilisation unit will be organised in three sections :

(i) Preservation, Seasoning and Grading;
(ii) Woodworking; and
(iii) Sawmilling.

The Timber Inspectorate will cease to function as a separate unit, its duties being absorbed in the activities of the first section. Within the period of the Plan, the third section will rely entirely on direct overseas technical assistance. In the initial stages of the Plan, 1971-72, this assistance will be provided by FAO. Subsequent assistance will depend on progress made, but an extension of the FAO project is possible.

8.81 **Silviculture Research.** The work of the Silviculture Research Division is to define problems, carry out research and make recommendations to management on all aspects of tree growth and associated matters such as the protection and rehabilitation of catchment areas. No long-range programme covering all aspects is considered advisable or practicable at this stage, but minimum staff and ancillary needs can be seen by a study of the present and planned plantation areas. The problems fall into three main groups :

(i) tree improvement. This section will cover the introduction and assessment of exotic species, the selection of seed sources of the best species for further testing and planting, and the improvement by breeding of the species used in general plantation work. The pine and mahogany grown at present is satisfactory in volume production but considerable improvements in financial yield can be made by the selection of superior strains with improved stem straightness (pines) and improved branch frequency and form (mahogany). Development of the work of the section will follow the general lines indicated in the report of the adviser on forest tree improvement;

(ii) mensuration. This section will concentrate on experimentation to determine the effects of thinning and pruning with the aim of producing tending schedules. In addition, collection and evaluation of growth data is required for constant up-dating of yield prediction which are essential to management for planning purposes;

(iii) general silviculture. Nursery and establishment techniques for pine and mahogany must be kept under review and refined whenever possible. During the Plan period an important part of the work of this section will be the development of large-scale nursery and establishment techniques for new species already in in the advanced trial stage. Work will be needed during the Plan period on aspects of fire protection and the rehabilitation of degraded grasslands in the dry zones. More work is needed to determine the possibilities of silvicultural work in logged natural forest which is not scheduled for re-afforestation or agriculture.

8.82 The proportion of total departmental expenditure which should be spent on silviculture research cannot be forecast. Examples of gain in yield and value of trees from stock improved by breeding have been published and there can be no doubt that the tree improvement programme must be regarded as top priority. Nevertheless, it is essential for good management to be up-to-date on the effect of the various tending and establishment treatments, the cost of which has a very large bearing on the cost of final tree crops. It is possible that additional staff and expenditure may be required on a short-term basis during the Plan period but this is as yet uncertain, and no extra provision is made for this.

8.83 The major aspects of the work to be carried out have been outlined above. The research is of a continuing nature but a need for additional research may be found as a result of problems unforeseen at present or which, because of change of circumstances, become important at an earlier time than can be foreseen at present. There will be a need for short-term visits by experts on specific problems, but it is considered that these can be arranged as and when the need arises.

8.84 The report of the FAO project is expected to identify areas in which more research is needed. Whilst it is considered that with present knowledge the proposed programme is adequate, the overall findings and specific questions of the FAO report can be expected to justify the need for a review of research activities.

8.85 **Forest Management.** The management division is responsible for overall planning of the afforestation programme and the planning of exploitation in the indigenous forest. During the Plan period major items of work will be :

(i) the development of long-term plans for the rational licensing and felling of the indigenous forest, based on the enumeration report, and including the supervision of extra enumeration work as required;

(ii) selection of areas for reservation of protection forests, based on the new Land Use Report;

(iii) determination of detailed land requirements for afforestation schemes and the acquisition of that land;

(iv) overall responsibility for the organisation and working methods of afforestation schemes with particular reference to the maintenance of the existing costings system and its development, the reduction of costs by the improvement of working tools and techniques, and the maintenance of plantation records;

(v) support as required for the FAO project and associated follow-up work.

8.86 **Recruitment, Training and Localisation.** Localisation will be pursued with all practicable speed. Professional officers will be recruited mainly from forestry graduates. More publicity will be undertaken at secondary school level to improve the flow of interested students and to allow a reasonable standard of selection to be exercised. Graduate training will continue to be pursued abroad at recognised forestry schools, but the use of preliminary courses at the University of the South Pacific will be kept under consideration.

8.87 Senior Supervisors (Foresters) will be selected from school leavers of very good School Certificate level and after trial within Fiji will be trained abroad in establishments which give recognised diploma courses. Outstanding staff of Ranger grade will not be precluded from promotion to this level.

8.88 Careful consideration will be given to the possibility of diploma courses being held in Fiji if and when expanded programmes are initiated and if other South Pacific territories are interested in taking advantage of the courses that would be made available.

8.89 Intermediate Supervisors (Rangers) will be selected from staff already in the service and trained at the Forest Training School, Lololo. Junior Supervisors and technical staff (Forest Guards) will be selected from school leavers of School Certificate standard and from the best of in-service unestablished staff. They will be trained at the Lololo school. Charge-hands and labourers will be trained by Forest Rangers or Forest Guards who have the aptitudes and skills required for this work.

8.90 Certain specialist staff, including those engaged in research and work study, may need training abroad, and every opportunity will be taken to achieve the degree of specialist training required. In addition it is hoped that 'on-the-job training' for forest workers and junior supervisory staff can be arranged in Australia and New Zealand.

8.91 **Protection and Amenity Forestry.** Protection of soil and water resources in degraded grasslands and catchment areas is envisaged, but action must await receipt of the report on Land Use by the Land Resources Division of the Directorate of Overseas Surveys, London. This report should indicate catchment areas and other steep lands in need of protection. Such areas will have to be reserved as Protection Forests after agreement has been reached with the Native Land Trust Board on the compensation that should be paid.

Table 8.9 : Capital Expenditure Programme, Forestry

($ thousand)

	1971	1972	1973	1974	1975	Total
Timber Research Station	46.0	—	—	—	—	46.0
General Divisional Expenditure (including afforestation)						
— buildings	35.1	30.1	65.6	42.3	10.1	183.2
— vehicles	19.3	17.7	33.3	8.8	11.1	90.1
— equipment	9.8	7.6	40.3	4.2	4.4	66.3
Extension Forestry						
— buildings	5.0	6.7	2.5	2.5	2.5	19.2
— vehicles	—	2.5	—	2.7	—	5.2
— equipment	2.0	—	2.0	—	—	4.0
Management						
— buildings	—	2.2	—	—	—	2.2
— vehicles	5.2	1.5	—	—	—	6.7
— equipment	2.0	3.5	0.5	0.5	0.5	7.0
Silvicultural Research						
— vehicles	3.0	3.0	—	2.5	—	8.5
— equipment	3.0	1.0	1.0	1.0	1.0	7.0
Timber Utilisation						
— buildings	18.2	13.6	—	—	—	31.8
— vehicles	12.9	—	2.4	1.2	3.8	20.3
— equipment	7.8	14.8	1.0	1.2	1.1	25.9
Training						
— buildings	4.3	2.2	—	—	—	6.5
— vehicles	2.7	—	2.8	—	4.0	9.5
— equipment	2.5	0.5	0.5	0.5	0.5	4.5
Road Unit						
— buildings	11.0	11.0	—	—	—	22.0
— vehicles	65.3	30.0	20.0	—	—	115.3
— equipment	15.4	—	—	2.0	—	17.4
— roads	60.0	60.0	60.0	60.0	60.0	300.0
Administration and Revenue						
— buildings	—	—	1.0	—	—	1.0
— vehicles	2.6	2.7	6.4	—	3.0	14.7
— equipment	—	1.0	—	1.0	—	2.0
Total	333.1	211.6	239.3	130.4	102.1	1,016.5

8.92 With tourism becoming an important industry in Fiji, the amenities provided by forests and trees should be developed as a tourist attraction, as well as catering for the local population. The steps to be taken during the period of the Plan to establish and develop forest amenities will consist of the following :

(i) ornamental trees and shrubs will continue to be made available to individuals and organisations on Arbor Day. Small charges will be made for seedlings when sold to the general public, but limited free issues will be made to schools and certain organisations such as charitable bodies. Every effort will be made to introduce new species to the range of ornamentals already commonly grown in the country;

(ii) in addition to raising ornamentals for Arbor Day, a certain number of plants will be raised for sale to the public at other times of the year. Provision will also be made to grow adequate stocks of cypress and pine for sale as Christmas trees in all the main centres;

(iii) it is intended that the Arbor Day plants be raised in nurseries so that distribution to all parts of the country is facilitated. However, if private commercial nurseries are started in any of the main centres and they fulfil the function of raising ornamental plants at reasonable rates for the public, then the departmental nurseries will not compete with them.

8.93 The creation of more nature reserves, forest parks and botanical gardens is considered highly desirable and it is proposed that liaison be made with the National Trust as soon as it is properly established and functioning. A plan will be drawn up outlining the detailed programme for such activities and the Forestry Department will give this its full support.

8.94 Table 8.9 gives a summary of planned capital expenditure on Forestry.

Fishing

Up until recent times, the domestic fishing industry in Fiji has been little more than subsistence in character. It has evolved around the use of small mesh gill-nets and an open flat-bottomed punt, with catches being sold direct at the various urban fish markets. There have been no local fishing vessels capable of fishing the inshore ocean waters.

8.96 It was only during the last Plan period that real attempts were made to organise and establish a commercial industry. A Fisheries Division in the Department of Agriculture was set up to develop this industry. Also during the period a commercial fishing operation was established at Levuka.

8.97 The Division has now established ten small unit fisheries concentrated mainly in the outer islands, where fishing offers the best livelihood. Total 1968 production of 56,000 lbs. increased to 142,000 lbs. in 1969. For 1970, production is expected to be around 300,000 lbs.

8.98 Sales of fish in the established urban markets over the 1967-69 period averaged 1.7 million lbs. annually. Over the same period, production at the Levuka commercial project averaged 15.8 million lbs. per annum.

8.99 A number of surveys and investigations have been carried out in recent years on various aspects of fishery development. One of these preliminary surveys has led to a United Nations project to make a two-year feasibility study of a shore-based tuna industry. Pearls are now being farmed at Namarai in Ra, the 1969 production being valued at $16,000. Oyster cultivation continues at the Bilo Bay Nursery, and fresh water research for fish breeding has shown some promise.

8.100 Vital to this phase of development has been the strengthening and regularity of ocean patrols and licensing of fishermen and fishing boats. This has emerged as an important function of the new Fisheries Division.

8.101 With the emphasis now being given to fisheries development and its effectiveness as a means of livelihood, especially for the outer islanders, there have emerged certain problems which have to be given attention in order to ensure further fisheries progress in future.

8.102 The major problems in the industry are the shortage of working capital and limited or even absence of technical skills. The shortage of capital presents a serious limitation because of the bottleneck in cold storage and handling facilities. In addition in the later years of the last Plan there was a great demand for fishing vessels to transport catches to the markets. Frequent mechanical trouble on Government vessels transporting fish to market has tended to reduce activity and dampen the enthusiasm of the fishermen.

8.103 Provision of cheap credit or even subsidies for modern equipment will be required for the continued growth of the industry. Efforts to improve technical skills and to convert traditional fishing gear and methods to more modern ones through training must also be intensified. This will be achieved through the establishment of a marine training school incorporating practical schooling on fishing vessels.

8.104 Because of the uncertainty surrounding the industry's potential and available resources, large-scale development proposals will necessarily be undertaken only after careful study and appraisal.

Policy Objectives

8.105 The main objective of the Fisheries development programme during the five-year period 1971-75 will be the development of an economic domestic industry to provide regular supplies for local requirements and possibly for export. With the establishment of this domestic industry effort and resources will also be directed toward improving the livelihood of the traditional fishermen.

8.106 More specific objectives to be pursued during the Plan period are :

(i) to promote and consolidate the development of all small-unit fisheries in the outer islands;

(ii) to investigate the feasibility of commercial fishing;

(iii) to train traditional fishermen in the use of modern techniques and equipment;

(iv) to provide adequate and efficient machinery for law enforcement and regulatory activities; and

(v) to undertake research and surveys into other fishery projects.

8.107 **Demand Projections.** Local consumption requirements for fish and fish products over the Plan period are expected to rise from 14.6 million lbs. in 1971 to 16.4 million lbs. in 1975. Over the past years local requirements have been met by relying heavily on imports of tinned fish to supplement the meagre local production.

8.108 **Local Production.** It is estimated that local fish production will rise from 3.7 million lbs. in 1971 to 12.2 million lbs. by 1975. Estuarine and coastal fisheries are expected to increase production from 3.2 million lbs. in 1971 to 6.5 million lbs. by the end of the Plan period. This represents a 20 per cent annual increase over present production. Production of the small unit fisheries is expected to increase by about 50 per cent annually, reaching 2.7 million lbs. in 1975. The tuna fishery project is expected to come into production by 1973 and be producing three million lbs. annually by the end of the Plan period.

Development Strategy

8.109 To reach the targets set and to pursue successfully the objectives of DPVI, a two-pronged approach is envisaged with emphasis initially on improving the existing fishing techniques and consolidating present developments. This programme will be concerned mainly with the established estuarine and coastal fisheries and the Government-sponsored small unit fisheries projects in the outer islands.

8.110 For the development of coastal fisheries it is proposed to establish ice-making machinery together with storage and handling facilities at Suva, Labasa and Lautoka and to encourage fishermen to collect ice from these centres and to utilise small insulated ice boxes.

8.111 More help and technical advice will be given to small unit fisheries, particularly in the form of loans for fishing vessels and the building of cutters. Assistance in marketing fish in urban areas will also be given.

8.112 The second approach will be based on the development of new fisheries and mollusc farming projects. More attention will be devoted to fish-breeding and fish-farming, particularly in the main river systems. An important project in the new fisheries programme will be the local shore-based tuna fishery experiment.

8.113 To facilitate the implementation of the programme, the Fisheries Division will be split into three main sections; namely, Administration and Law Enforcement, the Development Unit and the Research Unit. The Development Unit will be responsible for extension services including marketing services for the fishing schemes.

8.114 There is a clear need for advanced training courses for fisheries personnel, and the assistance of regional and overseas agencies will be sought in arranging such courses. Collaboration with other countries in the region will also be sought in order to benefit from their work in research and development.

8.115 Until suitable wholesale marketing facilities are available, the Fisheries Division will continue to handle the disposal of the catches from the outer island schemes. A small revolving fund will be needed for this purpose.

Development Projects, 1971-75

8.116 **Small Unit Fisheries.** Over the Plan period, resourc will be concentrated on consolidating the ten established fishin units with the provision of fishing cutters, vessels, moder equipment, handling and storage facilities and training. Initiall each unit will be based on the use of a standard type 20-foo gill-net skiff with handlines, gill-nets and in some circumstance bottom set long lines and straps as the main gear.

8.117 The second phase of development will be based on th use of multi-purpose vessels. A fishing unit might then compris three or four gill-net skiffs, four cutters and a carrier vessel t be set up at each of the ten centres.

8.118 The production target for the small unit fisheries 5,000 lbs. per week per unit, giving an annual average pr duction of 100 tons per unit or 1000 tons for the ten units.

8.119 Total project cost will be $380,000 of which $31,00 will be spent by Government in 1971 for silos, ice makin machinery and the fish market. Of the remaining investmen required, private fishermen would be expected to furnish pe haps 40 per cent from their own resources, and borrow the res Table 8.10 shows the probable phasing of this investment ove the Plan period.

Table 8.10: Investment in Small Unit Fisheries Development

($ thousand)

Source	1971	1972	1973	1974	1975	Tota
Government	31.0	—	—	—	—	31
Credit	20.0	40.0	50.0	60.0	46.0	216
Industry	22.0	27.0	29.0	32.0	23.0	133
Total	73.0	67.0	79.0	92.0	69.0	380

8.120 **Shore-Based Tuna Fishery.** A two-year feasibilit study will be carried out to determine the viability of develop ment of local fisheries to utilise tuna stocks in nearby water This United Nations backed programme will get under way early 1971 and is expected to be finished in early 1973.

8.121 It is expected that if the project yields favourab results a fleet of about twenty vessels will be required for local tuna off-shore fishery to be started in 1973. An industr of this size has the potential of producing twelve million lbs. fish annually.

8.122 **Live Bait Fishery.** In conjunction with the Tun Feasibility Study, it is proposed to conduct a gear and metho survey aimed at promoting a live bait fishery for the local tun industry. It is considered that the mullet gill-net skiff use in the development of reef and lagoon fisheries could be modifie for use in this project.

8.123 **Prawn Fisheries Project.** It is planned to continu exploratory prawn trawling and to conduct a gear and method survey to examine this project's commercial viability. The survey mission is expected to last for two to three years, beginning in 1972, but it is quite probable that sufficient evidence will have been collected to introduce some commercial operation on a minor scale by the beginning of 1973. One prawn trawler with survey vessel equipment will be provided by Government in 1972 at a total cost of $47,000.

8.124 **Oyster Culture.** The project will be concerned initially with increasing the capacity of the Bilo Bay nursery and setting out spat collectors in order to obtain spat for developing five farms near Suva. The Government will assume responsibility for developing the few areas available and offer these for lease to interested parties. The target is the establishment of five farms each having a capacity of 2,000 trays. Production can be expected after the third year of operation. Total development cost over the Plan period will be about $143,000.

8.125 **Fish Breeding Station.** This project will be concerned with further development of the fish breeding station and experiments in propagation and pond culture techniques for the fairly extensive unproductive brackish and saline mangrove swamps and flats along the coastlines of the larger islands. For these areas and for the main river systems it is intended to introduce from overseas several varieties of fresh water fish and prawns. Total capital cost will be $9,200.

8.126 **Crown of Thorns.** The programme of starfish control and eradication during the Plan period will be directed towards the physical control of excessive outbreaks. Particular attention will be paid to the effects of dredging, blasting, shell collecting in general and the removal of small reef fishes from the environment. It is proposed to commission a section of the research unit aided by a team of casually-employed divers to experiment with methods of starfish destruction. About $4,000 will be required during the Plan period; $3,000 in 1971 and $250 for each of the remaining four years.

8.127 **Conservation/Enforcement Services.** Conservation and law enforcement officers will be principally concerned with licensing of fishermen, inspection and registration of fishing vessels, surveillance over fishing operations and inspection of catches. The most immediate needs for this programme are accommodation, vehicles and vessels for land and sea patrols.

8.128 Marine pollution is becoming a serious problem and one of increasing concern with regard to its effect on fisheries resources. It is intended to study the effects of pollutants discharged from ships, the disposal of noxious chemicals, sewage, rubbish and other urban and industrial wastes. The Division will hold a small stock of Cortexit 7664 for dispersal experiments and training in pollution control and to control small localised outbreaks. The recurrent expenditure requirement for this project is about $4,000 annually over the Plan period.

Overall Size and Significance of the Development Programme

8.129 Capital expenditure allocated to the fisheries development programme for the 1971-75 period is summarised in Table 8.11.

Table 8.11 : Capital Expenditure Programme, Fisheries

($ thousand)

	1971	1972	1973	1974	1975	Tota
District Office Buildings	—	12.4	8.0	—	—	20.4
Small Unit Fisheries						
— silos	6.0	—	—	—	—	6.
— ice machines and storage	20.0	—	—	—	—	20.
— fish market	5.0	—	—	—	—	5
Tuna						
— vessel	80.0	—	—	—	—	80.
— UNDP support	27.0	27.4	10.0	—	—	64.4
— cold storage	—	—	—	75.0	75.0	150
Prawns						
— vessel	—	42.0	—	—	—	42.
— equipment	—	5.0	—	—	—	5.
Oysters						
— equipment	15.0	26.3	28.1	26.1	35.1	130
— shore facilities	—	4.8	2.4	2.4	2.4	12
Fish Breeding Station						
— equipment	4.1	3.1	2.0	—	—	9
Crown of Thorns						
— equipment	3.0	0.25	0.25	0.25	0.25	4
Conservation/Enforcement						
— vehicles	3.6	—	—	—	—	3
— vessels	—	16.0	—	8.0	—	24
Total	163.7	137.3	50.0	111.8	112.8	576

8.130 Both the overall size of the public expenditure programme and the net contribution of the fishing sector to th Gross Domestic Product are small. There are, however, cogen reasons why development efforts in this field are particularl desirable. In the first place, fisheries represent a fairly abundan natural resource. Second, there already exists a fishing traditio which can serve as a sound foundation for expansion. Third, th employment potential of the industry is substantial at a tim when job-creation is a prime objective of overall development

8.131 It is estimated that the successful implementation o the DPVI programme for fisheries will increase GDP by abou $1.5 million over the Plan period, and provide from 1500 to 200 new jobs. The success of the various projects, however, wil depend very largely on how well the private sector respond to Government initiatives. Total private investment of abou $1.1 million will be required. Since only a small part of thi amount can come from existing financial resources of the privat operators, it is clear that the availability of credit on reasonabl terms will be essential to the success of the programme.

ANNEX

PROGRAMMES FOR MAJOR AGRICULTURAL COMMODITIES

This annex details the specific programmes and project for the main agricultural commodities during DPVI. Table 8A shows the estimated production of all the commodities in 1968 and the targets for 1975. These targets are based on assumption about the maximum output achievable by 1975 within th constraints of available resources for each individual commodity.

Because of data limitations no production estimates are shown in the table for milk, goats, poultry, passion fruit, cereals, vegetables, fruits and pulses, although the production of these commodities is discussed in this annex. If agricultural output can reach the target levels in 1975 this will, amongst other things, considerably reduce the economy's dependence on imported foodstuffs; although sharps, flour, some meats, vegetables and fruits, and perhaps some rice, will continue to be imported along with a wide variety of canned and frozen foodstuffs. Overall, the attainment of the production targets will result in little or no increase in the volume of exported agricultural produce, although the volume of production for domestic consumption will increase at around 10 per cent per annum.

Table 8A.1 : Production of Major Agricultural Commodities, 1968 and 1975

(thousand ton)

	Estimated Production 1968	Target Production 1975
Sugar	394.0[1]	361.0
— for domestic consumption	(20.0)	(25.0)
— for export	(374.0)	(337.0)
Copra (and copra equivalent)	31.9	55.3
— for domestic consumption	(4.2)	(7.0)
— for export	(27.7)	(48.3)
Rice (paddy)	17.3	36.0
Beef (boneless)	3.0	4.2
Other Meats (boneless)	0.3	0.4
Butter, Margarine	0.6	1.1
Root Crops	75.2	150.0
Bananas	9.8	17.9
— for domestic consumption	(6.4)	(9.0)
— for export	(3.4)	(8.9)
Cocoa	—	0.4
Peanuts	0.6	0.8
Ginger	1.3	2.5
Dhal	1.4	3.3
Grains	2.6	3.8

[1] — This figure is for production in the 1968 crop season, not calendar year.

Sugar

8.133 This crop dominates the Fiji agricultural sector. The level of production has shown some upward movement since the early 1960s but there is an effective ceiling due to the existence of various international agreements for sugar to which Fiji subscribes. Year-to-year production fluctuations thus reflect bad crop years and stock-building rather than expanded markets.[1] Output of cane and sugar is detailed in Table 8A.2.

8.134 The total acreage planted to cane rose steadily in the 1960s to stabilise in 1969 at some 154,000 acres. This acreage was covered by some 15,596 separate production contracts under the small-holding production system operative in Fiji.

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[1] This is especially true of the record crop for 1968 which benefitted from especially favourable climatic conditions and also reflects an effort to maximise export sales in the last season before the International Sugar Agreement became effective.

Table 8A.2 : Sugar

(thousand ton)

	Production		
	Cane	Processed Sugar	Export
1965	2171	311	305
1966	2192	303	239
1967	2163	291	318
1968	2826	394	341
1969	2339	299	316

8.135 The total level of exports is now effectively determine by the International Sugar Agreement (ISA) under which Fiji i allocated an annual quota. Within this larger quota, Fiji ha been allocated quotas at advantageous prices in the more restricted coverage of the Commonwealth Sugar Agreement an the US quota system. In the period of DPVI exports will b restricted under the ISA to a quota of some 336,000 tons plu any special allocation in specific years under the Hardship Fund and any allocation due to an international supply shortfall.

8.136 Production during DPVI will thus be limited to th ISA quota plus domestic demand which is estimated to grow from a current 20,000 tons to some 25,000 tons by 1975, i.e a total of 362,000 tons. Given the trend in yields, which can b expected to rise to about 3.3 tons sugar equivalent per acre b 1975, the total harvested acreage should steadily decline t about 110,000 acres, with implied substantial releases of goo quality land for agricultural diversification.

8.137 The operations of the sugar industry have been effectively self-contained with extension services and researc sponsored by the sugar-milling company, South Pacific Suga Mills. Although changes in the control of the mill may affec this situation to a significant extent, the policy objectives remai unaltered. These are essentially to seek all channels for raisin productivity via the development of new varieties, improvemen in cropping technology, provision of technical assistance, et Although there is now a clear limit to the scale of sugar production in Fiji, there is a directly related need to improv efficiency and to minimise costs. The implied release of suga land discussed above will necessitate increased research on th problems of diversification, identifying appropriate crops an modified farming technologies, as well as further extensio assistance for cane-farmers.

Coconuts

8.138 Table 8A.3, based on the 1968 Agricultural Census and later copra grading reports, details the 1968 base year position. The population figures are those only for that element almost totally dependent on coconuts for a living.

Table 8A.3 : Coconuts, 1969 Situation

	Units	Division Western	Central	Northern	Eastern	Total
Population[1]	number	7,300	8,200	40,000	34,500	90,000
Growers	number	708	678	4,193	3,445	9,024
Total area	acre	8,570	7,060	110,565	63,385	189,580
Bearing area	acre	5,320	2,340	69,665	37,585	114,910
Copra Production	ton	967	666	17,859	13,597	33,089
Yield	cwt/acre	3.6	5.7	5.1	7.2	5.7
% Non-bearing[2]	%	38	66	37	41	40

[1] — estimated; coconut dependent only, not Divisional total.
[2] — i.e. per cent of total coconut crop area in each Division (and total) which was non-bearing in 1969.

8.139 In 1969 there were a reported 189,600 acres of coconuts of which some 40 per cent were not bearing. Yield for the bearing areas was an estimated 5.7 cwt. per acre (or 6.6 cwt. per acre when self-consumption of producers is included). The potential ceiling output of these bearing acres is some 42,500 tons per annum based on a yield of 7.5 cwt. per acre; for the currently non-yielding acreage, the potential is 29,000 tons per annum based on a yield of 8.0 cwt. per acre.

8.140 The new areas will start producing in 1971, and by 1975 should be yielding half their potential, i.e. 14,500 tons per annum. The 1968 Census reported four per cent (i.e. 7,500 acres) of the then productive acreage to be past the stage of economic production; it is now believed that this percentage is too low and that close to 20,000 acres are non-economic.

8.141 Copra production for the period 1967-70 is detailed in Table 8A.4. The accelerating growth over 1967-69 is expected to be interrupted in 1970 because of the drought in 1968-69.

Table 8A.4 : Copra Production

(ton)

	Units	1967	1968	1969	1970[1]
Volume	ton	24,860	27,730	33,090	30,000
Change over previous year	%		11.5	19.2	–9.3

[1] — forecast.

8.142 Projections of copra production are presented in Table 8A.5. Production is projected to grow at 10 per cent per annum to reach 48,300 tons in 1975. The copra equivalent of domestic coconut consumption, currently estimated to be about 5,000 tons, will grow to some 7,000 tons by 1975. Increased processing for dessicated coconut and 'lolo' may absorb 3-5,000 additional tons of copra equivalent by 1975.

Table 8A.5 : Copra Production, Projections

(thousand ton copra or copra equivalent)

	1970	1971	1972	1973	1974	1975
Copra	30.0	33.0	36.3	39.9	43.9	48.3
Coconuts	5.0	5.4	5.8	6.2	6.6	7.0

8.143 Gross production in 1975 should therefore be in excess of 55,000 tons (copra and copra equivalent). This is conditional upon the unusual climatic conditions prevailing over the past two years not being repeated and providing also that the new areas established under the subsidy scheme continue to be maintained satisfactorily.

8.144 The needs of the copra industry can be summarised as follows:

(i) to ensure that the 74,670 acres not yet in bearing are brought into production;

(ii) to replant the 20,000 acres that have outlived their economic usefulness;

(iii) to mount a limited new planting programme to bring in suitable areas that were not brought in during the present subsidy scheme. This will involve roughly 1,500 acres per year.

(iv) to encourage the proper maintenance of present groves;

(v) to improve the earning capacity of coconut growers by encouraging them to diversify into cattle and to intercrop with root crops, yaqona and vegetables;

(vi) to improve transport, marketing and processing facilities to expedite the marketing of increased production.

8.145 **Extension Services.** It is planned to increase the extension resources devoted to this crop, especially in the Northern and Eastern Divisions, since these divisions contain respectively 55 and 35 per cent of the total non-bearing acreage or a total 66,000 acres which needs to be brought successfully into production.

8.146 **Subsidies.** Table 8A.6 summarises planned expenditure on subsidy schemes. The commitment on the current scheme for maintenance work will continue to 1974 and will involve an outlay of a further $412,000.

Table 8A.6 : Capital Expenditure Programme, Subsidies

($ thousand)

	1971	1972	1973	1974	1975	Total
Present Scheme	171.0	134.0	69.0	38.0	—	412.0
New Scheme	59.0	85.0	116.0	134.0	149.0	543.0
Fertiliser and Herbicide	62.0	68.0	75.0	83.0	91.0	379.0
Beef Fencing	8.0	9.0	9.0	10.0	11.0	47.0
Total	300.0	296.0	269.0	265.0	251.0	1,380.0

8.147 The proposed new scheme envisages replanting of 2,550 acres in 1971, 2,950 acres in 1972, 3,750 acres in 1973 and 4,150 acres in both 1974 and 1975. New planting is planned at a rate of 1,500 acres in each year of the Plan period. Most of the replanting will take place in the Northern and Eastern Divisions. The mataqali groves are the category most in need of replanting and the qualifying conditions for entry into the replanting scheme will be modified from those of the previous scheme so that replanting of these groves may be catered for.

8.148 It is anticipated that subsidies will continue on fertilisers, weedicides, pesticides and wire; the cost forecasts of Table 8A.6 are based on a 50 per cent subsidy on the purchase price. Coconut growers will benefit from fencing subsidies comparable to those for beef farmers.

8.149 **Transport.** During 1969, when production of copra was just over 33,000 tons, it was evident that at times the transportation of copra from producing areas to Suva was being unduly delayed. There were reports of stock build-up due to boats not calling often enough. The present method of loading copra is for boats to call at many points to make up a full load. If roads could connect production areas to loading points and jetties were available to facilitate loading, the present commercial shipping could more easily cater for the increased production. They would waste less time on commuting between ports if they could discharge their cargo and load copra at only one or a few points.

8.150 Accordingly, a programme of new roading and jetties for the outer islands is planned for the period of DPVI constructing some 50 miles of road and two jetties per year.

8.151 **Research.** The emphasis in the Plan period will be on the following research schemes :

(i) breeding — Malayan Dwarf x imported Tall pollen
— Tall x imported Tall pollen
— Malayan Dwarf x Nie Leka
— Malayan Dwarf x Rotuman
— Selection of local Talls;

(ii) hybrid seed production; open pollinated Malayan Dwarf x Talls for the proposed replanting schemes;

(iii) varietal trials; to assess imported against local varieties;

(iv) fertiliser trials; use of NPK Mg on Wainigata and the proposed coconut station as well as on representative soil types outside these stations;

(v) cattle pastures/coconut; to assess the reciprocal effects on production of the two bio-systems;

(vi) spacing; on replanted areas within and outside the stations;

(vii) rodent control; to assess extent of damage, control measures and relative vulnerability of the different varieties.

8.152 The proposed coconut research station will aim at consolidating and intensifying the above work as well as providing a base for a possible regionally oriented research programme for coconuts. Work will also continue at Wainigata.

8.153 The new research station has been allocated the following funds : $150,000 for siteworks in 1971, $119,000 for buildings mainly in 1972-73, $12,000 for equipment and $26,800 for vehicles mainly in 1972.

Rice

8.154 The rice situation in 1968 is summarised in Table 8A.7. Production was estimated in the Agricultural Census of 1968 to be some 17,300 tons of paddy from a total of 24,350 acres. Growers are concentrated by number in the Western Division but the Northern Division has the largest acreage and output. Yields are significantly higher in the Central Division with its more intensive rice farming.

Table 8A.7 : Rice Situation, 1968

		Division			
	Units	Western	Central	Northern	Total
Growers	number	5,000	1,700	2,800	9,500
— distribution	%	52	18	30	100
Acreage	acre	8,856	5,576	9,919	24,353
Yield	ton/acre	0.66	0.89	0.65	0.71
Output (paddy)	ton	5,900	5,000	6,400	17,300
— distribution	%	34	29	37	100

8.155 It is apparent that during 1969 rice acreage rose in response to the higher prices offered for paddy ($100 per ton in 1969 against $64 per ton in 1968). However, despite the rise of approximately 1,000 acres it is estimated that overall production did not increase because of adverse weather conditions. An estimated 27,000 acres were planted in 1970 with a likely production of 20,000 tons of paddy.

8.156 Imports in the form of brown and polished rice amounted to approximately 9,000 and 11,700 tons of paddy equivalent in 1968 and 1969 respectively. The demand for paddy in 1975 is estimated at 40,000 tons. Unless domestic production is increased there will be steadily rising imports. The objective of rice development during the Plan period therefore is to substitute domestic production for most imports. The necessary increase in production will be sought, firstly, by increasing the yields of non-irrigated rice and secondly, by extending drainage and irrigation facilities for intensive rice growing.

8.157 As far as non-irrigated rice is concerned there has been a rising trend in yields from about 0.5 tons per acre in the early 1960s to 0.71 tons per acre in 1968. This is attributable to :

(i) the use of higher yielding varieties;
(ii) the use of cleaner seed through the Agriculture Department's seed testing and seed exchange schemes;
(iii) greater use of fertilisers and insecticides;
(iv) generally better husbandry and planting practices.

This trend is likely to be maintained and by 1975 it is estimated that the total production of non-irrigated rice will be approximately 24,000 tons.

8.158 To achieve the targets of near self-sufficiency and higher productivity the following policies are necessary :

(i) to continue to improve the yields of non-irrigated rice by the use of new and better varieties and greater use of fertilisers and insecticides;

(ii) to introduce small-scale double cropping systems where conditions are suitable and where this can be carried out cheaply.

(iii) to expand production to suitable areas not now in use.

(iv) to develop drainage and irrigation schemes for double cropping in Rewa, Navua, the Northern Division and elsewhere.

8.159 **Irrigation.** There are at present approximately 500 acres of land in the Rewa area with drainage and irrigation facilities for double-cropping of rice. These include the Rewa Stage I developed from Government resources and the Pilot Project which is part of the UNDP/FAO Rewa Pre-Investment Survey. Both these areas have shown the potential for large increases in rice yields and for double-cropping. In 1969, Huntings Technical Services carried out a Pre-Investment Survey in the Navua area; their report has put forward plans for the development of some 5,000 acres of land for irrigated rice production divided into four distinct sections which could be developed independently. Although the Rewa Survey is not yet completed it is known that the potential area suitable for irrigated rice there can also be divided into separately developable sections. It is proposed therefore that there should be a phased development of irrigation facilities for rice growing in both Rewa and Navua simultaneously during the Plan period. At the same time there will be a similar development of suitable areas in the Northern Division and elsewhere although this will be on a smaller scale. It is considered that a phased development on this scale and with this timing could be constructed and operated efficiently and when all areas are producing to the full capacity this will substantially obviate the need for rice imports.

8.160 Minor irrigation projects will be similar to the Barara scheme in the Sigatoka Valley with cropping not confined to rice.

8.161 The capital costs for construction are given in Table 8A.8. These include the sum of $300,000 for the purchase of equipment and plant to augment that which is already available. The average costs of construction are estimated at $300 per acre except for the minor projects which are estimated at $100 per acre.

Table 8A.8 : **Capital Expenditure Programme, Rice Irrigation**
($ thousand)

	1971	1972	1973	1974	1975	Total
Equipment and Plant	300.0	—	—	—	—	300.0
Construction						
— Navua	280.5	300.0	169.8	150.0	150.0	1,050.3
— Rewa	106.5	300.0	300.0	300.0	300.0	1,306.5
— Northern Division and elsewhere	60.0	60.0	60.0	60.0	60.0	300.0
Minor Projects	10.0	10.0	10.0	10.0	10.0	50.0
FAO/UNDP Rewa Project Counterpart Contribution	10.0	—	—	—	—	10.0
Total	767.0	670.0	539.8	520.0	520.0	3,016.8

8.162 **Subsidies.** These, especially for inputs such as fertiliser and insecticide which will be widely used due to the new irrigation schemes, will rapidly increase through the Plan period to total roughly $250,000 at current rates.

8.163 **Research.** Research work on rice will continue to be carried out at the Koronivia, Dobuilevu and Sigatoka Research Stations as well as on outside farms. The investigational programme is threefold, involving:

(i) introduction, bulking up and testing of new varieties. These will be mainly from the International Rice Research Institute and will be measured against locally proven varieties for yield, pest and disease resistance and response to fertilisers;

(ii) breeding. The best of introduced varieties will be hybridised with proven local varieties to produce crosses possessing the desirable characteristics of high yield, good quality and pest resistance;

(iii) management. Investigations on optimum rates for fertilisers, spacing, seed rate and rotations will be continued and expanded to provide the Extension Services with a sound and economic basis for their work with farmers.

8.164 The Koronivia station is to be re-organised in 1973-74 at an allocated capital cost of $170,000 for buildings and $45,600 for equipment.

Livestock — Beef

8.165 There has been an increase in local beef consumption, on the basis of domestic slaughter data, of almost 20 per cent per annum for the last three years. No direct data exist on beef production or yields.

8.166 The regional structure of the supply of marketable beef is indicated by slaughter and herd data in Table 8A.9 for 1968.

Table 8A.9: Cattle Situation, 1968

(number)	Total Cattle	Number Slaughtered	% Kill
Western Division	65,507	5,706	8.7
— Ra	14,906	1,635	10.9
— Nadroga/Navosa	13,975	955	6.8
— Ba	36,626	3,116	8.5
Central Division	38,552	5,898	15.3
— North Central	22,866	3,849	16.8
— South Central	15,686	2,049	13.0
Northern Division	33,272	1,856	5.6
— Macuata/Bua	20,614	953	4.6
— Cakaudrove	12,658	903	7.1
Eastern Division	3,116	88	2.8
Total	140,447	13,548	9.6

8.167 In the Western Division, the Ra kill rate is exaggerated by the presence of the Yaqara Estate with its 13 per cent kill rate from a 6,000 total stock. The 8.5 per cent rate of Ba is more typical for a cane area. The Nadroga rate of 6.8 per cent is good given the poorer market access of the latter area.

8.168 The kill rate for the Central Division of 15.3 per cent is good by most standards, being a combination of culls from dairy herds and production of fat steers at a 25-30 per cent kill rate.

8.169 In the Northern Division the poorer rates substantially reflect marketing difficulties. If the transport and related marketing difficulties were overcome, the Macuata/Bua kill could rise to eight per cent and that for Cakaudrove to 12 per cent or more (good herds on Taveuni are already achieving 16-18 per cent). The Eastern Division kill rate figure is deceptively low due to widespread home killing.

8.170 These regional divergences indicate that there is no uniform policy appropriate to all areas of Fiji. Emphasis on Viti Levu must be on improved production methods especially for prime cattle for which there is a good demand. On Vanua Levu it must initially be on marketing — improved techniques coming later when marketing is organised. It will obviously be very difficult to encourage farmers to rear cattle unless outlets are assured. However, once a farmer sees that there is money to be made from cattle he will improve his methods of production given the appropriate extension back-up.

8.171 The slaughter rate on Viti Levu is likely to slow in future to about a five to ten per cent annual increase. Expansion on Vanua Levu and Taveuni will be faster when the transport problems are solved. Overall beef production should grow in the medium-term at around 10 per cent per annum.

8.172 **Policies for Increased Production.** Farmer training and teaching is the first need for increased production of beef, whether it be from specialised fattening farms, from dairy farms from cattle under coconuts. Where new specialised beef farmers are started off they need more or less constant supervision for the first few years. Where farmers are on schemes in groups with contiguous land, much of the training can be a group basis but as many new farmers are quite far from each other it is felt that past experience should be followed and at least one extension worker provided for each 20-25 farms. This will allow the worker to spend a day a month with each farmer and this is considered the minimum requirement for the first two or three years.

8.173 Marketing is the second key requirement; the farmers need an assured market and an equitable price. At the present time the market structure is very weak consisting mainly of cattle buyers who while their coverage is reasonable often offer poor prices; no dealers exist for store or female stock.

8.174 In the absence of proper dealers and agents, the Agriculture Department has created a special marketing body, Commercial Undertakings, in order to market fat cattle at fair prices, to obtain breeding stock for farmers, to channel store stock from breeders to farmers who can fatten them, and to advance short-term credit to finance cattle transactions.

8.175 This new field of activity increasingly involves the central staff of the Agriculture Department but most buying is done by livestock officers and their assistants with 'marketing' advice and research provided by extension staff.

8.176 Subsidies are the third element; these relate at present to fencing, fertiliser and weedicide in the beef farming context. The subsidy on wire has now been improved and extended to cover posts. This programme for all livestock (not just beef) has been allocated $344,600 over the DPVI period. Continuing assistance with transportation on Vanua Levu and Taveuni will provide a further valuable element of subsidy.

8.177 Breeding stock — pure Brahman and pure and cross-breed Santa Gertrudis bulls — is being made available at subsidised prices from Agriculture Department stud-herds. There is also a need for improved Brahman cross bulls especially in the drier beef breeding areas and it is proposed to use the sheep experimental farm at Nawaii for breeding these. This has been started in a small way using Commercial Undertaking stock but it is now proposed that a full programme of selection and breeding of suitable stock should be commenced using locally available cattle. Financial requirements are small as the farm is already well set up to run cattle in conjunction with the sheep.

8.178 Credit is a continuing and growing need, especially long-term loans for financing farm purchase over 12 years and preferably upwards to 20 years. Short-term credit is currently being provided via Commercial Undertakings secured against sales of beef or cream proceeds.

8.179 While land is available in the longer term delays in its release and the processing of leases still significantly impedes development of the beef industry.

Livestock — Dairying

8.180 Production of milk for processing has grown rapidly in recent years although this expansion slowed somewhat in 1969 and supply is now only just able to meet demand. Fresh milk sales data are not directly available but sales are believed to be relatively static.

Table 8A.10 : Milk, Sales for Processing

	Sold for Processing	Growth over Previous Year	Equivalen Butterfat
	(gallon)	(%)	(lb.)
1965	299,060	—	95,700
1966	333,450	11.4	106,700
1967	367,490	10.2	117,600
1968	435,500	18.5	139,360
1969	449,230	3.1	143,750

8.181 Butter production, while still growing, has failed to keep pace with the growth in total demand. Imports are thus rising, and the achievement of self-sufficiency appears more remote.

Table 8A.11 : Butter, Production and Demand, 1965-69

(thousand lb.)

	Butter from Local Butterfat				
	Volume	Annual Increase	Butter Imports	Total Demand	Share of Demand Produced Locally
		(%)			(%)
1965	977	16.0	412	1,385	70
1966	1,039	6.8	252	1,291	80
1967	1,096	5.4	216	1,312	84
1968	1,144	4.1	390	1,536	75
1969	1,156	1.0	449	1,605	72

8.182 The implication of Table 8A.11 is that a positive extension drive is necessary to raise production if the import substitution policy is to be achieved or even if imports are not to continue their present rapid growth. Clearly all domestic dairy products can be readily absorbed locally for at least the period of DPVI.

8.183 **Future Expansion.** Commercial dairying is mainly confined to the Central Division. This situation will continue since this region has both suitable land and the necessary marketing facilities.

8.184 The scope for increased production rests substantially with existing farms, especially with the smaller, poorly managed units which can show a trebling of output over as short a time-span as a year when extension advice is fully applied. There is also new land suitable for dairying, but not for arable farming, which can be brought into use. Given the finite resources available, efforts will be concentrated on the former policy due to the faster return anticipated in production terms. New farms will be created as resources and qualified people become available.

8.185 **Policies for Increased Production.** The key policy is extension services since many improvements can be achieved at little capital cost just by changes in operating procedures. The impediment is mainly one of manpower and time to get ideas across to the farmers.

8.186 Marketing arrangements are well developed with the Rewa Co-operative playing a major role. Commercial Undertakings will continue to provide assistance in the sale and purchase of cull calves, cows and heifers.

8.187 The major area for subsidies will be in the provision of fencing which is a vital first step in the efficient operation of a dairy unit. Help may also be provided if practicable with legume seeds.

8.188 Pure Friesen and Jersey bulls are being made available from the Koronivia Station but stock quality is already reasonably high. Research is being carried out mainly on calf-rearing and calf-mortality problems including field programmes. Dairy cow nutrition is also being further studied.

8.189 Finance is not so acute in this sector due to the earl cash-flow from sales of milk and surplus stock. Improvement however, will demand some financial assistance and any creatio of new farms will require larger amounts of capital. At presen a new dairy farm requires about $2,000 in initial loan finance.

8.190 There is no immediate pressure on land. Hill land i suitable directly after clearing and grassing, but some bog-lan unsuitable for rice may need extensive drainage before pastur and cattle can be introduced. Considerable research is sti needed on this latter problem before any major development can take place.

Livestock — Goats

8.191 Unlike other livestock activities, goat raising tends t be largely disorganised with very few pure goat farmers an equally few regular marketing outlets. Under these circumstances effective extension work is difficult and there is littl change in farming methods.

8.192 It is not possible to assess annual production althoug clearly few animals are marketed through commercial channel It is apparent from prices of local goat meat and steady mutto imports (a direct substitute for goat meat), that supply is inadequate to effectively satisfy demand.

8.193 Further general expansion is not being actively fostere due to the damage and erosion caused by goats. They could however, be introduced on the drier islands of Lau, Lomaivit and the Yasawas where rainfall and grass growth are too lo for reasonable cattle production.

8.194 **Policies.** In most of the areas suitable for runnin goats there will be a need for appropriate extension advice t assist farmers to adopt to the idea of goat raising. Actual husbandry practices are simple and easily explained. Breedin stock are generally available and improved males are bein supplied in adequate numbers by the Sigatoka Agricultur Station.

8.195 There is no apparent general need for assistance i marketing stock at present but if goat raising is extended t the outer islands as suggested there could well be a need fo help in future involving Commercial Undertakings as appropriate.

Livestock — Sheep

8.196 Sheep-rearing in Fiji is still experimental with only on commercial flock of 200 head. Trials have indicated that shee may well be an economic possibility for the better than averag farmers in the dry zones of Fiji. Lambing rates, viability an growth of lambs all tend to show that a greater return per acr should be possible from sheep than from cattle or goats provided a reasonable standard of management is maintained. A trial due to be completed at the end of 1970 will give definit figures on which recommendations can be based but early indications are such that after one year of this trial it is propose to start two farmers off on their own with small flocks.

8.197 The Nawaii flock now contains nearly 400 ewes and ewe lambs and if the flock is maintained at about this number about 100 two tooth ewes could be released each year to new farmers from 1971 onwards.

8.198 It is considered that sheep should be an adjunct to some other form of farming rather than a sole enterprise and flocks of 25 ewes would be adequate for a start for each unit. Stock will be sold to farmers at a reasonable price with an element of subsidy as for most other station livestock. If results are good on the first eight to ten farms there will be a case for speeding up expansion by further imports of ewes from Australia and New Zealand.

8.199 Extension advice will probably have to be initially supported by the Nawaii staff, until extension staff have experience of and training in sheep management and also because at least the first eight to ten farms will be extensions of the Nawaii trials. New farmers will need considerable supervision in the early stages to prevent unnecessary failures which may harm the image of the whole programme.

8.200 **Markets.** Indications are that there is a good local demand for fresh lamb and mutton at high prices compared with those paid for frozen imported meats. Consumer reaction has been good and lamb is an effective substitute for goat meat.

8.201 No special marketing help will be necessary for meat but it will almost certainly be necessary for wool and it is suggested that farmers' wool should be purchased and shipped to Australia along with Nawaii wool.

8.202 **Incentives.** Subsidised prices for stock will not be a direct cost to Government unless imported ewes are introduced. The provision of help with fencing and pasture seeding could be employed as a further incentive. Some loan finance may be required to establish new farm units.

203 **Land.** Many thousands of acres of land suitable for sheep farming exist in the dry zones of Viti Levu and Vanua Levu. At present they are either unoccupied or farmed with cattle or goats. Sheep could be run with the cattle presently carried and could profitably replace the goats. Fiji at one time ran 11,000 sheep and it is certain there is land available to run at least 10 times that number.

Livestock — Poultry

8.204 **Eggs.** Fiji at present is largely self-sufficient in eggs with virtually no imports for the last few years. Occasional regional shortages are due to poor distribution and marketing, rather than to inadequate aggregate production.

8.205 There is thus no scope for a general expansion of production; this could only lead to a severe reduction in prices received by farmers to a stage where they would be below the cost of production all the year round rather than only at periods of peak production as at present.

8.206 Costs of production of commercial eggs are difficult to reduce as all poultry diets must include a high proportion of imported high protein feeds which cannot be produced locally as yet, and which would still command a high price o the world market even if they could be.

8.207 In this situation of little scope for further expansion of overall production care must be taken to avoid financial problems for newly established commercial operations in regions currently deficient in egg production. These problems can ensue from dumping by larger established producers from other areas in the periods of surplus production. Overall a delicate mark structure still exists and urgent measures are necessary t co-ordinate and control marketing and to stabilise productio and supply on a seasonal basis.

8.208 Extension advice will be geared mainly towards increasing the efficiency of farmers and so reducing costs o production, rather than towards increasing output, though som increase is bound to occur.

8.209 It is, however, in marketing that most could be don for poultry farmers if they would agree on the principle involved, which is that they should form themselves into co-operative marketing organisation. Attempts to organise thi in the past and to introduce regular collection, gradin packaging, and cool storage have all failed despite the obviou advantages that could result including invaluable collectiv bargaining power when marketing their production. Furthe attempts will be made to organise egg marketing on such co-operative basis.

8.210 Research into nutrition and management are vitall necessary if costs of production are to be reduced. Howeve the industry on the whole appears to be self-financing and litt if any need for assistance in the credit sphere is foreseen.

8.211 The poultry egg industry is extremely finely balance in almost all countries of the world and almost every develope country has a problem trying to manage and control productio to avoid violent swings from under- to over-production.

8.212 From all points of view it is an industry to b approached with extreme caution. In Fiji the major need for better organised marketing, which farmers could we organise themselves through a co-operative; special caution a well as careful planning should be exercised here.

8.213 **Poultry-Meat.** Local supplies of poultry-meat are inadequate in both quality and quantity to meet demand. The currently come from two sources; culled hens and rooste from laying flocks sold live, and the specialised broiler production sold processed through retail stores.

8.214 Prices for both forms are high partly due to hig costs but also because of inadequate supply, especially of liv birds. Processed broilers are imported to meet demand but pay a substantial protective duty imposed to create an incentiv to local producers.

8.215 Again a cautious approach recommends itself in the delicate equilibrium situation of this market. Increased production for live sale could be easily achieved but the lower price for culled birds would seriously hit the profits of egg producers. The conflicting interests of consumers and producers need to be carefully balanced.

8.216 Profitable expansion of the broiler industry will not be easy, as this type of farming demands a high degree of management skill and knowledge besides a high capital input, not only in the means of production but also in facilities for slaughtering, packing and marketing. Present commercial production is in the hands of a very few farmers and any increase in output will be more dependent on their steady growth than on more people entering the business.

8.217 Intensive poultry growing is a high risk venture from the point of view of disease and most extension advice needed is on the diagnosis and control of disease rather than on nutrition and management, which are both relatively well worked out for Fiji conditions. For this reason veterinary staff will have to be the main advisers on broiler farms and indeed on most commercial poultry farms, so that disease outbreaks can be identified as soon as possible.

8.218 If an egg marketing co-operative is formed it could well take over marketing of cull birds also and rationalise this trade. Otherwise no marketing assistance is considered necessary as the trade looks after itself very well on the whole.

8.219 Broiler marketing is a different matter and here there is a need for a firm to take over the collection of either live birds for processing and marketing or of processed birds for marketing and so allow the growers to concentrate on producing more and better birds. Enterprises have failed in the past from having had to be far too vertically integrated for management to cope.

Livestock — Pigs

8.220 After better than 20 per cent annual rises in production of pig meat between 1966 and 1968 and a 15 per cent increase in 1969, Fiji is close to meeting local demand in all but speciality pork products which cannot be manufactured here at present. Although these latter products are imported in substantial volumes there is little early prospect of local butchers being able to produce competitive substitutes.

8.221 There are in addition some imports of carcase pork which are inevitable and in fact necessary in such a small market as Fiji's with no export outlet. There have also been short periods when production has exceeded demand and when high quality pork is being demanded, these periods can be embarrassing to farmers and extension workers alike as pigs that have to be held back from slaughter tend to deteriorate in quality and so become of lower sales value.

8.222 It would appear certain that the industry now has sufficient impetus for it to carry on expanding sufficiently rapidly to satisfy any normal increase in demand. There will certainly be an increase in the number of pigs kept on dairy farms as more and more farmers see the obvious economic advantage to be gained from combining the two enterprises.

8.223 If pig production does increase above demand there will be a fall in price and the mixed arable crop-pig farmers who are also assisted by the Agriculture Department will be likely to suffer first on account of their high costs relative to returns. Government should, therefore, through marketing assistance endeavour to ensure adequate outlets for pig production whilst at the same time keeping the demand and supply position under continuous review and be prepared to stimulate increased production should it become apparent at any time that the capacity of the industry is not sufficient to cope with demand.

8.224 Extension advice will be geared towards the improvement of quality of production rather than quantity. Market demand is for a fast grown lean pig and it will be the aim of the extension service to continue to help farmers to produce these at the lowest possible cost making use of home produced feeds wherever possible.

8.225 Marketing assistance will need to reflect the development of specialist breeders and fatteners. It will need to be concentrated on marketing of porkers and baconers to ensure continuity of supply to butchers. Commercial Undertakings plus extension staff and officers will be able to assist in these activities.

8.226 Little other assistance is necessary for this industry. Finance will be mainly raised through normal commercial channels and breeding stock supplied at economic prices. Research needs to be increasingly production oriented with a fully economic costing approach.

Root Crops

8.227 The general situation relative to root crops as revealed by the 1968 Agricultural Census is shown in Table 8A.12. Total production was estimated at some 75,000 tons with an average yield of just under 2.2 tons per acre. Tapioca was the largest crop by volume and total value but yams were the most productive in terms of price per ton and also value per acre.

Table 8A.12 : Root Crops, Situation, 1968

	Area (acre)	Output (ton)	Value ($'000)	Price ($/t
Dalo	11,571	22,100	1,320	60
Tapioca	17,057	42,640	1,908	45
Yams	3,627	5,800	580	100
Kumala	1,597	3,990	179	45
Kawai	338	680	34	50
Total	34,190	75,210	4,021	

8.228 It is likely that as income levels rise, root crops will tend increasingly to be replaced by rice and flour products as an essential item of diet. This trend will be accentuated by the rising trend in prices of root crops. However, consumption could be encouraged by lower prices ensuing from higher productivity.

8.229 **Policies.** Extension services will concentrate on raising output especially for dalo and yams and the rationalisation of distribution and marketing. Fertiliser subsidies have a very limited role for root crops and are likely to involve only about $7,000 in total during the Plan period.

8.230 Marketing will be assisted by the Agriculture Department and also most probably the National Marketing Authority. This help is especially needed by small producers in the Eastern, Central and Northern Divisions.

8.231 Long-term research will be directed at arriving at fertiliser recommendations for dalo, tapioca and potatoes and at identifying varieties of the major root crops with good quality and yield characteristics and adaptability to different soil types.

Bananas

8.232 Of the 10,124 acres planted to bananas, some 1,400 acres are pure and the remaining 8,700 mixed. Concern in DPVI however, centres on the much smaller acreage of growers specialising in exporting to New Zealand detailed in Table 8A.13 below; this group exported some 2,990 tons of total export of 3,400 tons of bananas and plantains in 1968.

Table **8A.13 : Banana Growing for Export**

	Growers	Total Acreage	Acreage Share
	(number)	(acre)	(%)
adroga	50	25	2
erua	40	20	1
tasiri	1,000	840	65
evu	300	200	15
	200	200	16
al	1,590	1,285	100

233 The overall yield of these specialist export growers at 3.5 tons per acre is extremely poor. This is due to a combination of factors, some controllable and some not. Firstly, climatic factors sometimes upset production. The occasional inadequate quota given by New Zealand is the second major factor beyond the growers' control. However, the major causes of low yields are controllable; they are principally indifferent management, poor or non-use of fertilisers and pest and disease control materials, unsuitable soils and topography and finally transportation difficulties.

8.234 **Policies.** These difficulties should be eased by the improved provision of extension services, subsidies, marketing facilities, etc. and yields should be raised by at least 50 per cent. Over the Plan period a minimum target for exports of 265,000 cases per annum (8,850 tons) will be set. It is estimated that domestic demand will grow from some 6,400 tons in 1970 to about 9,000 tons in 1975.

8.235 Current crop areas devoted to exports will need to be doubled to achieve this target level even with improved yields.

Corresponding increases will be needed in the associated services, mainly extension staff coverage, credit facilities for input purchase and the erection of new packing sheds.

8.236 Land classification work begun in 1968 in the Waidina area will have to continue in other banana areas in Naitasiri, Tailevu, Ra, Serua and Nadroga. This programme will provide improved information on land potential not only for bananas but also for other crops.

8.237 The cost of subsidies for both fertilisers and fungicides, based on current rates, will expand nearly threefold with the planned new acreage. For fertilisers, subsidy costs will grow to $40,000 in 1975 and for fungicides to some $60,000; the total cost of subsidies for bananas over the period of DPVI is estimated at $320,000.

8.238 Credit needs will also expand rapidly if producers are to be enabled to ensure fuller satisfaction of export demand than in the past few years. Credit and other assistance will also be needed for packing facilities if export shipments are not to be damaged. Funds will also be needed to permit prompt payment by the Banana Board.

8.239 Bananas (and other crops) will be assisted by new rural roading, especially since many of the present and even more of the potential good areas are distant from existing roads.

8.240 **Research.** Research at Koronivia and Waidradra will be directed mainly at clarifying the optimum fertiliser requirements of the various soils on which bananas are grown. Attention will also be directed to the problem of spacing as well as towards finding more economic methods of controlling pests and plant diseases, particularly Black Leaf Streak. The production of virus-free planting material will be continued to provide a source of good planting material for the expansion that is proposed in the Plan period.

Cocoa

8.241 The cocoa situation for 1969 is shown in Table 8A.14.

Table 8A.14 : Cocoa, Situation, 1969

Division	Area (acre)	Share (%)	Yield (pods/acre)	Production (lbs. dry)
Western	394	7	356	9,500
Central	716	12	1,870	85,000
Northern	4,389	76	350	83,500
Eastern	302	5	495	7,500
Total	5,801[1]	100	515	185,500

[1] — Of this total area under cocoa pods, 3,901 acres are currently bearing

8.242 Of the area not bearing, much is planted with the high yielding Amelanado variety; 3,000 pods per acre can be expected from this strain, when bearing, yielding a gross additional output of 475,000 lbs.

8.243 Over the period of DPVI, substantial attention will need to be given to cleaning up existing cocoa plantations.

Yields should be able to reach 1,000 pods per acre with only modest increases in the attention given to weeding, pruning, fertilising and field sanitation to control black pod diseases and rodent damage. This improvement would result in a virtual doubling of output from the bearing acreage to a total of 350,000 lbs. Thus, extension staff will need to mainly concentrate their efforts in two directions; to encourage farmers to follow good husbandry practices to improve production on already-bearing areas and to ensure that areas not yet bearing are properly maintained.

8.244 Additional plantings of 100 acres per year are proposed for each of the five years of the Plan period. Half of this area will be established with loan assistance for fertilisers. However, most expenditure over the Plan period will not generate additional output in the period and benefits will not ensue until the late 1970s.

8.245 **Subsidies.** To continue the present subsidy, and to extend it to an additional 100 acres per year, will require some $28,000 over the period of DPVI. A further $40,000 will be required to finance the 50 per cent fertiliser subsidy.

8.246 **Research.** During the Plan period, investigations begun during DPV will continue and be expanded as some of the more basic problems of varieties, nutrition and disease and pest control are studied. Research support to the extension services will take the form of providing seed of proven varieties for planting, more definitive fertiliser recommendations and advice on plantation management generally. Work will be concentrated at Wainigata, Naduruloulou, Waimaro and Dobuilevu. In addition, trials will continue on an expanded scale on outside farms to give added practical relevance.

eanuts

247 Total production in 1968 was 562 tons, all but 32 tons n pure-planted areas. Most of the output is consumed internally the confectionery market.

able 8A.15 : Peanut Growing, by Region

re)

ovince	Number of Growers	Acreage			Share of Grand Total
		Pure	Mixed	Total	(%)
a	900	444	186	630	32
droga	300	141	54	195	10
a	600	345	99	444	24
ailevu	100	180	24	204	11
akaudrove	100	24	39	63	3
acuata	200	300	18	318	17
erua	. .	27	—	27	1
Bua	50	54	9	63	3
Grand Total	2,250	1,515	429	1,944	100

8.248 The emphasis in the Plan period will be on improvin production from the present areas to seek to raise supplie beyond the level of local demand. It is not likely that domesti peanut oil will be substituted for imported supplies, becaus this would necessitate the planting of very large addition acreages, which would be uneconomic given present price an cost characteristics.

8.249 Fertiliser and variety trials are presently in progre in various districts to determine how best to raise productio These will be continued during the Plan period and it is antic pated that average yields will be of the order of 10 cwt. p acre by 1975. This yield implies a total production of 833 ton

8.250 **Research.** This programme will mainly comprise th continuation of projects from DPV including testing of variet for confectionery and oil market outlets plus agronomic tria on fertilisers and soils and rotations with other short-ter crops at the Dry Zone Research Station. Varieties will be r leased to farmers through the extension services as they a proved to be suitable.

Ginger

8.251 Ginger — fresh, brined or processed — is primaril an export crop. The markets for these products are extreme price and quality sensitive. Nevertheless Fiji, as a result strict controls applied at harvesting, has an established r putation as a supplier of high quality ginger.

8.252 There were about 100 growers cropping some 85 acr for processing and export in 1968, when exports of ging totalled 625 tons. This figure rose by 44 per cent in 1969 900 tons.

8.253 The expansion of the industry partly hinges on recent attempt to introduce Fijians, who have not in the pa been growing ginger, to its cultivation. The Department Agriculture has allocated a 100 ton contract to these farme Extension services will, over the Plan period be concerned mo and more with encouraging more growers to enter the industr

8.254 Exporters are optimistic that markets will continue expand and it seems more than likely that exports will increa by a compound 10 to 15 per cent per year over the Plan perio

8.255 There are three main requirements for increased pr duction :

(i) to continue to control and regulate times of commenc ment of harvesting to ensure that ginger is of suitab maturity;

(ii) to investigate optimum fertiliser formulation and rat for the crop on different soil types;

(iii) to encourage and train farmers to participate in th industry.

8.256 **Research.** Research on this crop will be directed at arriving at more appropriate fertiliser recommendations than now exist and at clarifying questions of rotations, pest and disease control. The possibilities for forcing maturity using chemical defoliants will also be pursued. Further varieties will be introduced to assess the possibility of widening the industry into dried ginger, a market that has not been explored previously.

Passionfruit

257 The Sigatoka Valley, where in 1969 there were 100 acres under the crop, is virtually the only area of commercial cultivation of passionfruit in Fiji. The fresh fruit is either exported to New Zealand or processed into pulp and juice.

258 As a result of a decline in prices in 1967 which caused interest in the crop to wane, only about half the planted acreage is now properly maintained — even though the return per acre on this crop is still higher than for any other grown in the area.

259 The firm prospect of expanding markets both for the fresh and for processed products warrants an increase in production, and hence in planting, over the Plan period. It is estimated that a fully bearing area of 80 acres is necessary to satisfy demand and, hence, a planting programme of 20 acres per year to 1974 is proposed.

Miscellaneous Crops

260 This section covers all crops not dealt with individually, including cereals, vegetables, fruits, pulses, etc.

261 Over the Plan period, the standard of living will continue to rise and the population will become increasingly urbanised. This will be reflected in a rising per caput local demand for vegetables and fruit.

262 The production of vegetables is particularly sensitive to climatic fluctuations. Normally, there are adequate supplies of good quality during the cool months but shortages inevitably occur over the warm season. Work is in progress to find varieties that have a better seasonal spread. A pilot project to investigate the feasibility of irrigated production became operational during 1970. If this is successful, extension of the system can be made during the Plan period.

263 It seems likely that local and export demand for vegetables, fruits and other miscellaneous crops will rise at a compound annual rate of five per cent during the Plan period. There should be a more even distribution of production than has been the case in the past. Tourist development and increased roading in the Northern and Eastern Divisions should give farmers in these areas a more reliable and more economic outlet for their produce.

264 The main requirements for development are:

(i) to raise production by at least five per cent annually during the Plan period;

(ii) to educate farmers to produce crops with which they have little or no experience;

(iii) to introduce, test and distribute seeds of varieties that are suitable for local production;

(iv) to assist in the rationalisation of marketing and di tribution;

(v) to encourage greater use of fertilisers and pesticides.

8.265 **Extension.** Extension effort will be concentrated o encouraging farmers to plant varieties suitable to their growir conditions and to use fertilisers, pesticides and improved hu bandry, harvesting and handling techniques. The extensi division will continue to encourage the planting of voi-voi ar masi and give assistance through the provision of plantir material. The estimated total (capital and recurrent) expenditu for extension services is $478,600 over the Plan period.

8.266 **Research.** Horticultural research will be carried ou mainly at Sigatoka Agricultural Station (SAS) and the Dry Zo Station, while work on fruit trees will be performed at SA Dobuilevu, Nawaicoba and Seaqaqa. Emphasis will be on testi new varieties for their suitability for local conditions and su sequent distribution to farmers through the extension servic if found suitable. Investigations into pathological problen (e.g. of yaqona, vegetables, etc.) will be continued.

CHAPTER 9

MINING AND QUARRYING

The mining and quarrying sector includes extraction of etallic and non-metallic minerals and their mechanical or emical processing. Its contribution to Gross Domestic Product small (about 1.4 per cent) and has declined over recent years. s employment of wage-earners is more significant, with 5.4 r cent of total wage-earners in 1968.

2 The 1968 census on mining and quarrying revealed about establishments in this sector, one in gold mining, three others metal mining (manganese, copper) and the remaining 12 were quarrying. The gross output and employment are shown in ble 9.1.

ble 9.1 : **Mining and Quarrying, Output and Employment, 1968**

	Gross Output ($'000)	Net Output ($'000)	Employment (number)
d and silver mining	3,552	2,801	1,670
her metal mining	833		170
arrying	425	153	225
tal	4,810	2,955	2,065

3 As shown in the table, gold mining dominates the sector th about 74 per cent of the gross output and 80 per cent of employment. The book value of fixed assets was about $1 llion at the end of 1968; the market value was probably nsiderably higher. According to the 1968 census, firms in sector contemplated investing about $1.3 million by 1970 development work of which 16 per cent was intended for loration, 53 per cent for new buildings, plant and machinery, 32 per cent for other items, such as alterations and repair uildings, replacement of equipment, etc.

The 50 per cent growth in the output of the mining and rrying sector projected for the last Plan period has not erialised. On the contrary, estimated output in 1970 is y to be about 10 per cent lower than in 1965. This adverse lopment can be ascribed partly to an over-evaluation of ntial new ore deposits and partly to the failure to locate high-grade deposits at existing mines. Output of gold slightly in 1966 and 1967 but by 1970 was about 10 per cent w the 1965 level. A new mining venture (copper) was ted at Udu (Northern Vanua Levu) in 1967, but the deposits h originally were estimated to last for several years' ations were depleted after only 16 months of exploitation. put of manganese ore rose substantially, reaching a level in four times that of 1965. Output from quarries rose an average of 5.6 per cent per annum during the same period.

9.5 Work on exploration and prospecting was intensified during the Plan period, as shown in Table 9.2.

Table 9.2: Prospecting Activity, 1965-69

	1965	1966	1967	1968	1969
New prospecting rights issued	24	20	43	70	52
Prospecting licences in force at end of year	9	7	13	34	37
Land area covered at end of year ('000 acres)	412	434	1,283	1,490	5,509

9.6 The large increase in the area covered by prospecting licences in 1969 was due to the issue of Special Prospecting Licences to two large firms. One licence covered all areas on Viti Levu and Vanua Levu not earlier allocated and was for locating metalliferous minerals. The other covered the north-western area of Vanua Levu and was for the location of manganese ore, bauxite and phosphate. The former operation included both geochemical and geophysical surveys which were carried out in conjunction with the Department of Geological Survey. The first phase of the search for metalliferous minerals was scheduled to be completed in 1970; the second programme is scheduled over two years, starting in 1970.

9.7 A review of Government expenditure during the DPV Plan period indicates a significant increase in assistance to this sector. The annual recurrent budget of the Geological Survey department more than doubled between 1965 and 1970, and an amount of $220,000 was allocated for capital improvements, including an extension of the chemical laboratory and a new building wing housing a museum, lecture room and petrographic laboratory. The staff of the department rose from 33 to 59 during the 1966-70 period. Geological mapping of Fiji continued during the period and the area covered by maps at the scale of 1:50,000 increased from 5,638 square miles by the end of 1965 to about 6,900 square miles by the end of 1970, representing 98 per cent of the total land area. The department's activities in mineral exploration (sample drilling, collection of soil samples, geochemical analysis, etc.) also increased considerably during the period.

Mining and Quarrying Policy, 1971-75

9.8 Mineral development policy is based upon the fundamental concept that the mineral resources of Fiji are owned by the state and should be exploited so as to produce the optimum benefits for the public at large. This basic policy is supported by legislation, consciously designed to be flexible so as to meet the diverse and often complex issues involved, by favourable fiscal policies and by the provision of relevant specialist services.

9.9 The discovery and exploitation of these resources will, in general, require highly specialised technical resources and the expenditure of considerable capital. The Mining Ordinance and Regulations are designed to provide a framework for the administration and control of mineral exploration and exploitation by private investors, both local and overseas.

9.10 The nature of the legislation, the general fiscal policies of Government, the quality of the technical and scientific services and, above all, the mineral potential as indicated by the geological mapping and specialist publications have led to a remarkable increase in exploration activity in recent years. During the DPVI period it will be the objective of policy to control and broaden this exploration of the natural resources of Fiji so as to encourage and assist the establishment of productive mining in new fields and extend where possible the economic life of present mining activity.

9.11 Present procedures and practices with regard to the issue of prospecting and mining rights have proved sufficiently attractive to encourage the growing number of highly specialised overseas mining companies now active in Fiji. Within the framework of the legislation it will continue to be the general policy of the Government to let out exploration rights in areas of potential mineralisation by competitive tender. The terms of such exploration concessions will be designed to secure a high level of expenditure, the employment of specialist personnel and techniques, a vigorous prospecting programme and the regular submission of comprehensive reports. It will be the task of the Departments of Mines and Geological Survey to supervise such exploration activity and to evaluate such reports.

9.12 The granting of mining rights will tend to be subject to the negotiation of a detailed agreement in each case. The factors to be taken into consideration will, as appropriate to the circumstances, be likely to include the rate of extraction, the rate and assessment of royalty, the valuation of ore for tax and royalty purposes, safeguards against pollution, restoration of land, the grant of access and site rights, the rights and interests of landowners, the employment of local persons, local equity participation and the extent of processing in Fiji where this would be a reasonable requirement. For such negotiations, it may be necessary from time to time to obtain the advice of expert counsel.

9.13 The Geological Survey will continue to provide a basic scientific service for the development and exploitation of mineral resources generally. It will continue to provide geological advice and, when possible and appropriate, to assist exploration companies within the limits of its resources and capacity. The compilation and publication of geological and geochemical maps will be a major contribution. It will be of growing importance that laboratory services and a research capability of high quality be maintained. As the importance of mineral exploration and exploitation increases it will be necessary to expand the supervisory and scientific capability of Government. However, to ensure that the incentive for private investment in mineral exploration will be maintained, Government will not, as a general rule, actively prospect for minerals or oil on its own account.

9.14 At the onset of the DPVI period the mining and quarrying industry faces somewhat mixed prospects. The recent decline in the free market price of gold has dimmed the hope for any expansion of gold mining. In the longer run it seems likely that the free and official market prices for gold will remain in balance at around US $35 per ounce, unless industrial demand increases substantially.

9.15 The outlook for mining of minerals such as manganese and bauxite seems somewhat brighter. Surveys in connection with plant and port sites, roads and loading facilities at the bauxite area in Vanua Levu had in 1970 progressed to a stage where the actual commencement of mining operations by 197 seemed fairly certain. Presently known deposits appear capable of supporting a rate of operations over a number of years estimated to produce exports of the value of about one million dollars annually. Manganese mining is also expected to expand further, if present favourable prices continue.

9.16 Prospects for the commencement of exploitation o other metallic minerals during DPVI are uncertain. Further geological mapping and detailed investigation of certain area might, however, in time provide a basis for new ventures Quarrying is expected to expand at a rate of five per cent pe annum following the expanded activity expected in the building and construction industry.

9.17 The rate of growth of the mining and quarrying secto is projected at 2.4 per cent per annum during the Plan period Whether this rate will be achieved depends on the one hand on the somewhat doubtful future of gold mining and, on the other hand, on the possibility that the current high level of exploration activity might produce an unexpected stimulus via the exploitation of new finds later in the Plan period.

9.18 The present policy of assistance to the mining industry will be continued and expanded in DPVI. Capital expenditure allocated to geological surveys amounts to $468,700, or more than twice the amount allocated during DPV. A large part o the capital programme ($276,000) is allocated to instruments equipment and drilling equipment. It is expected that geological mapping of the total land area of Fiji (scale 1:50,000) will be completed during the Plan period. There will be a shift in emphasis towards more basic mineral research. Detailed exploration in specific areas is expected to be more exclusively undertaken by private firms.

9.19 Within the Plan period it is intended that the off-shore areas of Fiji should be the subject of a diversified oil exploration programme. It is expected that individual exploration agreements will be signed with a number of separate companies each assessment covering an area of some 3,000 square miles Such agreements will be designed to secure drilling of at lea one well within five years in each area.

9.20 **The Special Case of Gold Mining.** Because of the unusual importance of this industry as a large employer and foreign exchange earner, Government has in recent years given it special assistance in the form of cash grants in reimbursement of development costs. In view of rising costs and a static world price for gold, there is some doubt as to the ability of the industry to continue without such aid. At the present time the question of further assistance to gold mining is still under consideration.

9.21 Table 9.3 shows the planned level and phasing of capital expenditure by the Geological Survey in the 1971-75 period.

Table 9.3 : Capital Expenditure Programme, Geological Survey

($ thousand)

	1971	1972	1973	1974	1975	Total
Various Buildings	—	—	—	15.0	20.0	35.0
Instruments and Equipment	29.5	19.3	17.5	19.3	21.7	107.2
Drilling Equipment	51.0	63.0	44.0	5.0	6.0	169.0
Other Equipment	5.0	5.3	5.8	6.0	6.3	28.4
Vehicles	14.5	11.5	9.3	9.3	2.4	47.0
Air Photograph and Infra Red Survey	0.3	15.4	5.4	5.5	5.5	32.1
Sea Bed Investigations	50.0	—	—	—	—	50.0
Total	150.3	114.5	82.0	60.1	61.9	468.7

CHAPTER 10

MANUFACTURING AND PROCESSING

Value added in manufacturing and processing grew fro $14.9 million in 1965 to $19.2 million in 1970, an average annu rate of 5.2 per cent. The economy as a whole grew at a fast rate; hence, the contribution of the sector to GDP declined fro 12.4 per cent to 10.9 per cent during the DPV period.

10.2 Manufacturing and processing is still a minor component in the Fiji economy especially if the dominant activi of sugar processing is excluded. On the basis of the 196 Census of Industries, the structure of net outputs is estimat to be as below :

Activity	Share of Net Outp
	(%)
meat	4.0
bakery products	2.2
other foods [1]	59.9
drink and tobacco	6.9
saw-milling, joinery, board manufacture	3.6
wooden furniture	3.0
paper, printing, allied industries	2.9
paints, varnishes, soaps	4.0
cement and cement products	4.4
metal products (including furniture)	2.4
agricultural and industrial machinery	3.5
ship and vehicle building, repairs	1.0
others	2.2
Total	100.0

10.3 Much industrial activity is of recent vintage, especial small-scale, import substitution activities. Long establish activities include sugar processing, copra, other food and dri processing and various small scale light engineering activiti e.g. furniture manufacture.

10.4 Employment within this sector is still very limite with an estimated 1970 level of 12,100 persons or 8.6 per ce of total employment. The sector is, however, much mo significant in the context of wage employees; based on the 19 employment survey, manufacturing represented 31 per cent total private sector wage employment. The sugar indus employs about 40 per cent of the sector total while saw-milli etc, wooden furniture, shipbuilding and motor repairs, ea absorb a further seven to eight per cent.

10.5 Investment in private industry has steadily risen ov the period of DPV. For manufacturing alone investment in t last year or two rose to $9 to $10 million annually, representi more than one quarter of total private sector gross fixe capital formation.

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[1] Predominantly sugar processing

10.6 Over the period of DPVI the contribution of manufacturing and processing is projected to grow at 4.5 per cent per annum, reaching $24 million in 1975. The sector's share in total GDP will fall to 10.2 per cent. This declining role results solely from the expected static position[1] of the sugar industry; growth in non-sugar industrial activities will be substantially above that in total GDP, or about eight per cent per annum. Employment in this sector will grow much less rapidly due to rising productivity and is projected to be only 13,500 persons in 1975 as against 12,100 in 1970.

Table 10.1 : Gross Domestic Product, Manufacturing and Processing

($ million, current prices)

1965	1966	1967	1968	1969	1970	1975[1]
[illegible]	15.0	16.6	17.6	18.8	19.3	24.0

[1] — 1970 prices.

Industrial Development Strategy

10.7 The industrial sector is of growing importance to the Fiji economy. While it is not seen as the key component in a development strategy, it is still expected to contribute significantly towards the Plan objectives, especially the optimal use of available human and physical resources and the reduction of income disparities.

10.8 The major problems of the industrial sector, concerned as it substantially is with products of the major trading nations, relate to its international competitiveness. It is of limited benefit to Fiji to produce internationally non-competitive products while the balance of payments remains satisfactory and unemployment levels are not excessive. Yet such poor competitiveness is a constant risk in Fiji with its limited domestic market in a world of ever-increasing economies of scale. It is therefore imperative that Fiji choose carefully among industrial projects, both manufacturing and processing, seeking especially those with moderate economies of scale, a modest export potential especially within the Pacific Basin and the capability of enhancing value-added to existing (or potentially exploitable) domestic resources. Fiji should also be aware of the enhanced risk of creating excess capacity and even of ineffectively using existing capacity for specific products in its small total market.

10.9 The implication of the preceding paragraph is that the best course of action for Fiji is not to seek full self-sufficiency in every import component but, following the classic rules of economic comparative advantage, to concentrate its attentions on a narrower range of activities with significant export possibilities.

10.10 In contrast to India, Fiji is a minute island economy and must accept an ever-increasing need to be an active trader in the world economy. While many special problems arise from the smallness of Fiji, there are some compensating advantages. Fiji is a truly marginal trader in the world context and thus, provided that its products are technologically and economically competitive, can hope to sell in export markets without too much fear of protective reactions.

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[1] This is not expected to be affected by the changes in ownership and operational control due to occur early in the Plan period. However, towards the end of the Plan period, major changes could well occur in the international sugar situation with significant adverse implications for both agriculture and the industrial sector.

10.11 More specific problem areas exist. There is increasing evidence of shortages within certain skill categories of the labour force. These are not yet acute but as discussed elsewhere careful and increasing attention will be needed in the design and implementation of appropriate training programmes within industry itself and within the formal educational system. Such manpower blockages can otherwise result in substantial increases in costs via poor labour productivity.

10.12 Private capital, while clearly available in the aggregate within the Fiji economy, is still very difficult to mobilise for domestic investment. The role of the Development Bank in this context has eased the situation, but the longer term demands an expanded and broadened base through which domestic savings can be channelled into productive investment. There are several institutional possibilities among which the creation of a domestic stock exchange is being actively explored.

Development Policies

10.13 Policies in the industrial sector, as in all others, must be related to the broader orientations of national priorities in terms of income redistribution, employment and aggregate economic growth. It is the central aim of Government to ensure a favourable investment climate for both domestic and overseas investors against this broader background of national priorities.

10.14 Government must operate largely indirectly in this sector since investment is overwhelmingly private. Government will create the appropriate infrastructure and influence the investment climate indirectly via concessions and other forms of assistance to industry. Beyond this the role of Government is that of a catalyst seeking to channel and to attract investment along established priorities.

10.15 Industrialisation is not sought for its own sake, but only as a balancing component in the development of the Fiji economy. Industrial projects must therefore not only be profitable and otherwise attractive to the private investor, but to attain positive Government assistance and encouragement, projects must also contribute to the national welfare, creating domestic employment and income.

10.16 A number of active policies exist to serve these aims. These are briefly discussed in the following sections.

10.17 **Investment Climate.** Government policy is to encourage productive investment wherever possible both through the increased mobilisation of domestic savings and the inflow of overseas capital. The specific policies outlined later have a clear catalytic role but a favourable investment climate can be equally created by general political and social developments. To this latter end, Government seeks to ensure the equitable treatment of investments and their profits, placing no major restraints on overseas repatriation of funds, maintaining equitable taxation and otherwise allowing normal commercial operation of industrial activities. In a broader social context, Fiji has maintained a stable political framework.

10.18 The skills of the labour force are steadily improving through the extension of education, especially vocational and technical training courses. Shortages still exist (Chapter 4) but Government does not unduly impede the use of expatriate labour to satisfy such deficiencies.

10.19 **Concessions Policy.** Concessions are a major component of Government industrial policy. Their role must be to encourage marginal investments; those that are clearly acceptably profitable should need no concessions. It is also a characteristic of a concession that it has a finite duration; it is an aid to the initial development of an industry or project. If the concession needs to be permanent then either the project is not viable or the concession should be an outright subsidy reflecting an inevitable divergence of social benefit and private profit.

10.20 Concessions need to be carefully oriented towards the sensitivities of individual project promoters, each of whom has his own private priorities, which may not fully reflect the actual cost of the concession to Government. Concessions as incentives provide Government with an instrument for improving the allocation of scarce resources within the economy. By their discriminate and even negative use, Government can indirectly but positively influence private sector investment decisions towards a closer accord with national priorities.

10.21 Concessions currently available in Fiji to processing and manufacturing industries include the following:

(i) tariff concessions on imported plant, machinery and equipment;

(ii) tariff concessions on imported raw materials;

(iii) income tax concessions — basically the alternatives of a five-year tax holiday or accelerated depreciation.

In addition, some newly established industries have been protected from imports by substantial tariffs. Certain exports qualify for a refund of excise tax paid on inputs.

10.22 This basic pattern of concessions will continue to operate in the future. In any appraisal of prospective projects the costs of such concessions need to be incorporated. Of equal importance, the concessions need to be regularly reviewed and only extended if still beneficial to the Fiji economy. Appraisal and re-evaluation of concessions will be carried out by a special technical group which will operate within the appraisal framework (paragraphs 10.27-10.30). It is of major importance that a consistent set of rules be established and applied if concessions are to be an effective instrument of development policy. Equally, the presence of such rules applied by a specialist committee drawing upon expert advice will expedite the approval of concessions where appropriate.

10.23 Two international aspects of concessions will need to be reviewed in the coming years. There is growing evidence in some areas of the world of 'concession wars'; these are not productive to the countries concerned and Fiji must seek to avoid them (perhaps by regional discussions) and to ensure that concession levels are appropriate rather than inflated. The appraisal procedures should diminish this danger. A related international aspect is that Government should seek to ensure, via appropriate double taxation agreements, that concessions do not become transfers of taxation revenue from Fiji to the Government of the country to which profits are repatriated; otherwise, the concessions will be neutralised and hence fail to act as the intended incentive.

10.24 **Industrial Estates.** To ease the initial organisational burden of industrialists and to avoid the communications, infrastructure and town planning problems of scattered industry, Government is encouraging the creation of industrial estates. This policy can clearly also ease the time-lag between conception and physical operation of an industrial unit, especially under the increasingly difficult conditions of land acquisition which operate in Fiji. The industrial estate concept, by the physical proximity of various production units, promotes a more mobile labour-force, the greater diffusion of skills and a greater likelihood of industrial 'linkages' being forged via the provision of common services (e.g. repair facilities) or inter-firm trading.

10.25 A major industrial estate at Vatuwaqa is due for completion in 1971 built for the Ministry of Commerce and Industries. Plans exist for further Government sponsored estates at Nasinu, Ba and Lautoka; work on the former will be started in 1971, while the latter two projects are still being examined in detail. Private industrial estates are also being developed; sites are already becoming available. One of these estates is at Nausori and another at Lami is planned for about 1972/3. The Housing Authority also has plans to make industrial development areas available in conjunction with certain housing schemes.

10.26 Funds totalling $1.35 million over the period of DPVI have been allocated for industrial land development. This programme will need to continue well beyond DPVI, however, if an orderly pattern of industrial development is to be achieved without major and costly delays occasioned by land shortages and the creation of appropriate infrastructure facilities.

10.27 **Industrial Promotion.** The Ministry of Commerce and Industries established an industrial promotion unit in 1969 under the supervision of a United Nations Adviser. Its role was to be catalytic, encouraging and assisting potential industrial investors and exploring areas of possible investment. The unit seeks to provide economic, technical and administrative advice to prospective investors. It hopes to create, by means of making preliminary studies, a file of appropriate potential projects. Appropriateness in this context is defined to mean maximising the utilisation of domestic natural resources, physical and human. The promotion unit will then seek to match projects to entrepreneurs, foreign and domestic (or governmental agencies if appropriate).

10.28 The promotion unit will also utilise and disseminate, as appropriate, marketing data collected by the marketing unit within the Ministry of Commerce and Industries. Government policy will be to pay increasing attention to the promotion of exports, especially to countries with which Fiji currently has a substantial trading deficit.

10.29 **Fiji Development Bank.** The Development Bank will have an increasing role in financing and otherwise assisting the expansion of industrial activity in Fiji. It will remain for some time the major if not the sole agent for Fiji equity participation in overseas inspired and controlled industrial operations. As such it will have a responsibility to make its investment decisions not solely on good banking principles but must be heavily influenced by the socio-economic criteria discussed in paragraphs 10.34 to 10.42.

10.30 While the Bank must remain essentially a bank, it needs to be continuously aware in its actions of its special developmental obligations. For this reason it should seek equity participation or options in attractive projects. Conversely, Government should encourage overseas investors to offer substantial shareholdings to the Bank. Domestically, the Bank should seek to expand the local equity market by encouraging and, if necessary, sponsoring a modest stock exchange. It should encourage and, if able, facilitate the participation of other institutions such as the FNPF, savings banks, commercial banks and insurance companies in local investment activities.

10.31 The role of 'joint ventures' will be explored more fully in the next year or two. Such ventures will have a substantial rather than a nominal Fiji equity participation and overseas investors will be mainly involved in providing managerial, technical and marketing expertise, in exploiting Fiji resources. The amount of risk capital will be reduced for the foreign investor and Government concessions for appropriate projects will be preferentially available.

10.32 **Extension Services.** Extension advisory services for industry have been started in 1970 within the Ministry of Commerce and Industry and are also likely to be made available at a later date by the Development Bank. Such services have a parallel role to those in agriculture; namely, by personal contacts and specific advice appropriate to any one operation, to improve overall operational efficiency and, hence, profitability. Such advice will relate to technical matters, plant operations, labour and managerial matters, financial questions, product marketing, etc. As appropriate, the extension service will refer individuals or companies to other appropriate specialist bodies or organisations in Government, international agencies, consultants, etc.

10.33 Such extension services will have their main benefit in improving the viability of small to medium size industrial operations especially those established by inexperienced local entrepreneurs. The indirect benefits from this service will lie in more successful local industrial ventures and less frequent instances of wasted resources through poorly designed, inappropriately operated and even unjustifiably created domestic industrial concerns.

Appraisal Framework

10.34 The work of the Ministry, the Central Planning Office and other Government organisations or agencies such as the Development Bank in appraising proposed projects requires a guiding framework. This framework will guide any such evaluation by providing the appropriate factors and their respective weights by which the social and economic — as opposed to private — benefits and costs are accorded priority in terms of Government policy. The factors considered will include :

(i) contribution to national income;

(ii) employment potential;

(iii) inter-linkage effects — influence on sales/availability of inputs for other local industries or other economic sectors;

(iv) contribution to enhancement of labour-force skills — managerial and technical;

(v) contribution to long-term improvement in balance of payments, especially potential as a viable export sector;

(vi) likely impact on domestic competition and price levels

10.35 The operation and criteria of this appraisal framework will need to be fully integrated with the objectives of DPVI and other Government policy decisions. The results of such appraisals must, correspondingly, have a major influence upon the nature and extent of assistance awarded to a project in the form of technical assistance, concessions, etc.

10.36 A major need is to have a *consistent* frame applicable to the broadest possible range of projects in industrial and non-industrial sectors so that those of the highest social return are created within the known restraints of available finance, construction capacity and other scarce national resources. The frame must also recognise the possibility of divergences between social and private costs and benefits and where appropriate endeavour to utilise meaningful 'shadow' prices.

10.37 Such appraisals and comparable feasibility surveys will need to examine and analyse a wide range of data on markets, costs and prices as well as technical and engineering data. They will also need to assess tax and other Government revenue implications, the impact on employment, etc. By implication, the team involved will need to be highly competent and flexible individuals with distinct roles for engineer, accountant, economist and marketing expert.

10.38 These appraisal criteria provide the basis for establishing guidelines on the types of projects which are appropriate to Fiji conditions. The work of the Ministry and the Central Planning Office should provide further details during the early years of DPVI. The recent document "Report on Small Industry Opportunities and Policies in Fiji Islands" prepared by the Indian government sponsored techno-economic survey team provides many more detailed suggestions. In the end, however choice is a matter for the individual entrepreneur; Government can only seek to encourage, discourage or remain neutral towards his choice.

10.39 In terms of the appraisal criteria, there are, however, certain major characteristics of suitable industries which can be isolated, especially when the basic nature of Fiji is recalled; namely, a small relatively isolated island group with a substantial but still little diversified agricultural economic base and an expanding demand for consumer imports balanced increasingly by rapidly developing tourist industry export earnings.

10.40 The narrow domestic base implies that few complex industries will find an adequate domestic market to support the necessary economies of scale. In consequence, industrial investment should wherever possible have an export component capable of profitable operation. Import substituting projects with *no* export potential should concentrate on products with limited economies of scale, high unit transport costs or on basic commodities with a clearly established and potentially profitable market in Fiji.

10.41 The major role of agriculture and the agreed policy of seeking to expand and diversify agricultural activity indicates a clear second area for industrial development; namely, agricultural processing. Such processing has a clear import substitution role in many instances but equally, and preferably, wide opportunities exist for developing exports of processed fruits, fish and forestry products, etc.

10.42 The clearly indicated need for expanded employment in the economy implies that a significant weight must be attached to labour-intensiveness in project selection. In the evaluation procedure, this weight is partially effective via the use of a 'shadow' wage but the choice of industry rather than the actual labour-intensity chosen within an industry is of equal or greater relevance if viable projects are to be created. Some possible areas of interest are made-up clothing, woodworking, leather goods and other craft activities, shipbuilding and repairing.

The DPVI Capital Programme

10.43 Table 10.2 details expenditures under the heading of the Ministry of Commerce, Industries and Co-operatives other than those detailed under the National Marketing Authority (Chapter 14) and Co-operatives (Chapter 15). The major item discussed above is that appropriate to the creation of industrial estates.

Table 10.2 : Capital Expenditure Programme

($ thousand)

	1971	1972	1973	1974	1975	Total
Industrial Land Development						
— Suva area	150.0	150.0	150.0	100.0	100.0	650.0
— Other areas	100.0	100.0	100.0	200.0	200.0	700.0
Weights and Measures Division	12.8	22.8	11.0	3.0	3.2	52.8
Industrial Promotion Division	1.9	—	—	2.0	—	3.9
Total	264.7	272.8	261.0	305.0	303.2	1,406.7

CHAPTER 11

BUILDING AND CONSTRUCTION

The building and construction industry will be one of the key industries in the coming years, not only because of its potential for absorbing an appreciable portion of the rapidly expanding labour force, but also because of its responsibility to implement a major part of public and private projects vital to further economic growth and social improvement.

11.2 A rapid increase in the demand for building and construction work during recent years appears to have resulted in near full capacity utilisation in this industry. In fact, in 1970 there was evidence of increasing shortages in some fields, in particular of skilled tradesmen and of building supervisors. A further rapid expansion of demand in the next few years is likely to compound these shortages. The backlog of private building orders together with the demands of the public sector, suggests a need to double building capacity in the next three to four years.

11.3 Incomplete information about the organisational structure of the private building industry, its composition in terms of skilled, semi-skilled and unskilled workers, and its capital equipment, makes it difficult in any detail to ascertain the magnitude of present shortages and strains in this industry and its capacity for further expansion. The measures which the Government envisages to put into action in DPVI to overcome these shortages and strains and to assist in a general expansion of its capacity sufficient to meet future needs, are therefore tentative and subject to alteration and adjustments as better information becomes available.

11.4 The Public Works Department is the largest single employer in the building and construction sector with about 3,000 workers, evenly divided between building and construction work. The private sector consists of a few larger firms and a great number of small firms and of self-employed people. The total labour force can be estimated at about 10,500 in 1970 as compared with 7,500 in 1965.

11.5 In the past most of the capital equipment of the industry, in particular heavy earth moving machinery, belonged to the Public Works Department. In recent years the larger firms have improved their equipment and machinery appreciably, and are now in a position to hire out equipment.

11.6 The structure of the building and construction industry changed quite substantially during the DPV period; most of the expansion of the labour force has occurred in the private sector, whereas PWD's labour force has been kept at about the same level. The Government has since 1966 followed a policy of contracting out an increasing proportion of public building projects to the private sector. The private sector's proportion of the total labour force increased from 60 per cent to about 70 per cent over the DPV period.

11.7 Within the private sector there have also been important changes; some of the larger firms have expanded appreciably and 10 of these firms represented in 1970 roughly one-third of the output in the incorporated sector. At the same time the number of smaller firms grew rapidly from about 73 in 1965 to about 180 in 1970. The buoyancy of the building sector appears also to have resulted in a rapid increase of self-employed people from about 700 in 1965 to about 2,000 in 1970. The capacity of the unincorporated sector appears to have profited by a substantial increase of 'moon-lighting' by regular wage-earners.

11.8 The volume of building work in the private sector roughly doubled during the DPV period. The number of skilled workers grew at a much slower rate. However, this has been compensated for by a more intensive utilisation of the skilled labour force. Larger unit buildings also resulted in greater output per man-year. Strains in this sector became increasingly evident in the last years of the DPV period and have resulted in sub-standard work in some fields and in fairly rapid increases in building prices. The strains are mainly due to shortages of skilled tradesmen, especially plumbers, electricians, block-layers, and supervisors, but are also felt in the professional, managerial and organisational fields. Acute shortages of licensed electricians, the need for which has been compounded by the substantial growth in electricity consumption, made it impracticable during 1970 to enforce strictly the installation regulations.

Developments During DPVI

11.9 It is estimated that the building and construction industry has to expand at an average rate of at least nine per cent per annum over the DPVI period in order to have sufficient capacity for implementing the public building and construction programme envisaged in the Plan and at the same time meet the needs in the private sector. To attain this target the rate at which new skilled tradesmen enter the building and construction industry has to be more than twice as high as in the 1966-70 period and the number of semi-skilled about 20 per cent higher. Various programmes are envisaged to improve in general the supply of skilled manpower (see Chapter 4). Although these measures will contribute to bringing forth the required number of semi-skilled tradesmen, they will not appreciably affect the number of fully-fledged tradesmen because of the time element involved in this kind of training (three to five years). The present intake of technical courses seems to indicate that there will be substantial shortfalls in the number of fully skilled local tradesmen in DPVI. There may thus be a need in the next few years to supplement the skilled labour force with expatriates, especially in connection with some major enterprises undertaken by foreign contractors. Insofar as these expatriates do not fill jobs which could have been filled by locals, the Government will not object to this kind of recruitment. This measure might tend to exert pressure on prices (higher wages for expatriates), but on an overall basis the benefit of enabling employment of a larger overall labour force (of semi-skilled and unskilled labourers), will tend to outweigh this disadvantage.

11.10 As would have been expected, the rapid increase in building activity has brought into the industry many new-comers with little experience in planning, management and accounting. Consideration may therefore be given during the Plan period to establishing a Management Training and Advisory Unit with a view to organising courses in management, costing and planning of work for small and medium-sized private building and construction firms.

11.11 As far as the public sector is concerned, inadequate forward planning and preparation of projects were to some extent responsible for a slow expansion of the volume of public building works during DPV. Improvements in this respect are envisaged in the new Plan period; among other things, an effort will be made to plan not only the projects already included in the programme, but also a list of 'reserve' projects.

11.12 No change is envisaged in the policy of keeping the PWD's building capacity at about its present level. This implies that a substantially larger proportion of new public building projects will be contracted out to the private sector (more than twice as much as in DPV). As there appears to be some spare capacity in some of the rural areas, consideration may be given to contracting out smaller building projects to rural craftsmen, thereby in general increasing the capacity of the sector and in particular enabling PWD to take on more work in areas where strains are apparent.

11.13 The responsibility for the training of various skills is at present shared among a number of institutions, with inadequate overall co-ordination and co-operation. This situation tends to reduce the overall effectiveness of the various schemes and is of particular relevance in the training of skilled building workers. Early in DPVI consideration may be given to establishing a central unit responsible for the overall projections of the need for various skills and for the implementation, co-ordination and evaluation of the various training schemes.

11.14 The measures suggested above to improve the capacity of the building and construction sector are tentative, reflecting the limited knowledge of this sector. Developments in this industry will be closely watched and further investigations made into its structure and the composition of its manpower. If serious delays in the public building and construction programme should appear or if strong inflationary tendencies should become apparent, more radical measures may be contemplated.

CHAPTER 12

ELECTRICITY, WATER SUPPLY AND SEWERAGE

Electricity

Public utility electricity supply consisted in 1965 of the Government supply in Lautoka and Levuka (on a temporary basis) and the municipality supply in Suva. Other townships were supplied by private firms or had no organised electricity supply. In 1966 the Fiji Electricity Authority (FEA) was formed with a view to taking over the responsibility for public supplies in all townships and at Nadi Airport. By 1970 FEA had taken over and extended supplies in Lautoka, Ba, Nadi Airport, Levuka, Sigatoka, Tavua, Labasa, Nadi Town and Savusavu. The only township with private supplies by the end of 1970 was Vatukoula (supplied by Emperor Gold Mine). Suva City electricity supply continued to be run by the City Council, as no agreement was reached as to the financial terms on which this should be transferred to FEA.

12.2 Capital expenditures on the electricity systems of FEA and Suva totalled about $2.5 million and about $2.0 million respectively during Development Plan V. These expenditures have resulted in an increase of the installed capacity from 3,600 kw. to 10,400 kw. for FEA and from 9,600 kw. to 19,300 kw. for the Suva supply system. The number of connections rose in the same period from about 2,000 to 5,660 in the area supplied by FEA and from 7,700 to about 16,000 in the Suva supply system. The population in areas covered by public electricity supply is estimated at about 60,000 in 1965 and 170,000 in 1970.

12.3 Consumption of electricity provided by the public supply systems rose rapidly during the DPV period, in particular in the FEA area. The average increase from 1966 to 1970 was about 22 per cent per annum for FEA and 14 per cent per annum for the Suva system, with a total consumption in both systems of about 95 million kwh. in 1970 as compared with 50 million kwh. in 1966. Demand for electricity from the rapidly expanding tourist industry was a dominating factor in the FEA area. From September 1966 to August 1969 hotel consumption rose from four per cent to 26 per cent of total consumption in this system. In the Suva region electricity consumption rose by 19 per cent from the first half of 1969 to the first half of 1970 which is about 50 per cent higher than the growth rate in the previous four years. This increase can mainly be attributed to a more general use of air conditioners, not only in hotels but also in offices and homes.

12.4 In 1965 electricity rates varied greatly, from 12.5 cents per unit for lighting in Labasa to five cents per unit for the first ten units decreasing to 2.9 cents for monthly domestic consumption over and above 100 kwh. in Suva. As FEA gradually took over supplies in various areas, more uniform tariffs were introduced, but rates have remained appreciably higher than in Suva. The average return per kwh. in the FEA system in 1968/69 was 3.67 cents, against 2.74 cents in the Suva system. In 1970 the rates in Suva were slightly reduced.

12.5 The policy of FEA in extending electricity supply into rural areas is based on the general principle of full recovery of capital outlay from consumers over a period of time. Consumers in new areas pay an initial deposit equal to 40 per cent of the capital cost and guarantee a minimum annual revenue payment to FEA equivalent to 20 per cent of the total capital costs. The deposit is refunded in the fifth year if the revenue guaranteed has been obtained. In practice such extensions have occurred largely within a distance of two or three miles on each side of distribution mains. Special arrangements are made for larger consumers, such as hotels and timber mills. In the Suva region there has been considerable extension of supply outside the city boundaries.

The DPVI Programme

12.6 The present policy of satisfying the increasing demand for electricity and expanding the area of distribution where this is economically feasible will continue in DPVI. With the completion of what may be termed as the first phase of a national electrification programme during DPV and the introduction of more uniform rates on a country-wide basis, FEA will be faced with the following tasks during the DPVI period :

(i) incorporating the Suva supply system within the framework of the national authority;
(ii) consideration of further rationalisation of tariffs in the area supplied by FEA and of extending public supplies to smaller population centres;
(iii) review of policy with regard to rural electrification;
(iv) possible hydroelectric development.

12.7 Discussions between FEA and the Suva City Council on the terms for incorporating the Suva supply in FEA started in 1969. In principle the Government supports this incorporation but with the proviso that some payment be made in recognition of Suva City Council's dependence on surplus electricity revenues for the financing of general development of the city, at least during a transition period. Because an early amalgamation will be highly desirable both from an administration point of view and in relation to the formulation of an overall national policy on future electricity development it is important to reach an early solution to the problem.

12.8 Reductions in electricity rates in areas outside Suva are desirable both as a means of stimulating industrial development on a country-wide basis and of reducing the cost of living in these areas and thereby retarding the concentration of population in the Suva region. However, because further electricity expansion will require large amounts of capital, most of the surplus revenue generated by electricity systems during DPVI will be needed for ploughing back into the system, and the room for further reduction in rates will consequently be rather limited.

12.9 Because of low density of population in rural areas, large-scale rural electrification schemes cannot be carried out by the supply authority on its own account, but will have to be supported by large capital injections from the Government. Limited financial resources will not make large-scale rural electrification feasible during DPVI, and no provision has been made for this in the capital budget. On the other hand, assistance for the installation of diesel generators in individual villages might be part of self-help schemes for rural areas.

12.10 With the rapid increase in electricity consumption it will become economic to consider the development of hydro-electric power. Preliminary investigation seems to indicate that a good hydroelectric site exists at Monasavu in the central part of Viti Levu with a capacity of about 200 million kwh. per annum. Harnessing of the Monasavu falls would make feasible a common grid system covering the whole of Viti Levu, with possible transfers of power between the main consumption centres. It is intended to engage consultants to investigate in detail the cost of harnessing these falls together with the costs of a mains distribution network, in the early part of DPVI. If such a scheme proves feasible it is intended to have the scheme implemented in the latter half of the 1970s. The successful preparation and launching of such a scheme will, however, very much depend on an early amalgamation of the Suva and FEA systems.

12.11 Electricity consumption is expected to grow at a rate of 12 to 14 per cent per annum during the Plan period. In order to meet this need, capital expenditures of the order of $6.5 million are planned. Part of this amount will be financed from the current surplus of the systems. The need for loan capital is estimated at $5.0 million. Total consumption of electricity generated by FEA (including Suva) can be estimated at between 177 and 185 million kwh. by 1975.

Water Supplies and Sewerage

12.12 The water supply system in Fiji which covers thirteen main centres of population is of a high physical, technical and administrative standard. Improvements and extensions during DPV have enabled the system to keep pace with the growing demand and to maintain generally high water quality.

12.13 Government capital expenditure on urban supplies of about $3.0 million has resulted in an increase in capacity from 7.9 million gallons per day in 1965 to 10.1 million gallons per day in 1970. About 60 per cent of the work of expanding the Suva supply system was completed during DPV. When this project is completed the total capacity will be 14.3 million gallons per day.

12.14 The number of connections to piped water rose from 17,026 by the end of 1965 to 24,531 by the end of 1969. The population with tapped water facilities can be estimated to have increased from about 105,000 to about 150,000 in the same period. Consumption of metered water rose by about 5.5 per cent per annum.

12.15 Government's contribution to water supplies in rural areas was $510,000 during DPV, of which $350,000 was for village supplies and $160,000 for settlement supplies. The cost of village water supplies is shared by the villages which contribute one-third of the equipment cost and the unskilled labour. Under this scheme about 185 supplies were constructed during DPV, bringing the number of villages with piped water to about 435, out of a total of 1,140 villages. In addition, the Government in 1968 introduced a scheme for drilling boreholes for supplementing water supplies in the dry zone. During the DPV period some 50 boreholes were drilled, although a substantial proportion failed to yield a supply.

12.16 Unusually long spells of dry weather made emergency supplies necessary for longer periods than in the past. An estimated total of $360,000 was spent for this purpose during DPV.

12.17 Country-wide standard charges on water consumed were introduced in 1965. Except for small adjustments due to the decimalisation of the currency in 1969, no changes occurred during DPV. Rates charged favour smaller consumers to some extent. Total revenues from reticulated water supplies including the value of free supplies to schools and religious institutions and to Government departments and institutions rose from $649,000 in 1965 to $764,000 in 1969. Maintenance and operation costs and estimated capital charges and overhead costs rose from $611,000 to $876,000 in the same period. The excess of costs over revenues in 1969 is partly due to the fact that capital expenditures rose faster than water consumption, but mainly to an extraordinary rise in the cost of emergency supplies ($148,000 in 1969 as against $38,000 in the previous year).

12.18 Government policy with respect to sewerage development changed radically during DPV. At the onset of DPV waterborn sewerage facilities existed only in the central part of Suva and at Nadi International Airport. No provision was made in DPV for Government contribution to sewerage although plans for grants to municipalities were under formulation.

12.19 Government's direct financial support for sewerage development began in 1967 with a new sewerage system in Lautoka based on a 60 per cent share of the total costs. The increasing need for sewerage development in Suva and Nadi made it evident that further Government support would be needed. It was then decided that Government should take central control of all community sewerage development. This decision reflected the desire to prevent unco-ordinated and high cost piece-meal construction of individual sewerage systems and to co-ordinate sewerage development with water supply systems. In 1969 it was decided to strengthen the water and sewerage section as a preliminary to the establishment of a separate department if need be.

12.20 The Government's contribution of $254,000 to a sewerage scheme in Lautoka resulted in a system of trunks, pumping stations and an ocean outfall for this town, with a design capacity to serve 10,000 people. In Suva the Government contributed about $300,000 to the cost of a treatment plant and trunks at the Raiwaqa Housing estate, to initiating a sewerage scheme in new development areas in the north-eastern part of the Suva region (Nasinu and Kinoya) and to consultants' fees for advice on master plans for sewerage development in Lautoka and for design work in the Suva region.

Policy and Programmes, 1971-1975

12.21 As indicated above, urban water supply capacity was substantially expanded during Development Plan V. Consequently the main emphasis will now be put on the utilisation of these new supplies, i.e. on major distribution mains, pumping stations, storage facilities and reticulation. In some areas there remains a need for expanded capacity, especially in Lautoka and Labasa. There will also be a need to introduce reticulated supplies in new areas where tourist and industrial development is expected (e.g. Savusavu).

12.22 The public expenditure allocation for urban water supplies during DPVI is $2,245,000. This will provide for the expansion of basic supplies and an extension of reticulation systems in the major urban centres. In addition to the projects now provided for, it may be necessary during the Plan period to review the situation in the Sigatoka area where supplies to major hotels are presently furnished by private schemes. The overall demand for a regional scheme estimated to cost more than $500,000 is not yet sufficient to make such a scheme economic. The situation will, however, be kept under close scrutiny during the Plan period.

12.23 In line with the Plan's major emphasis on rural development, provision is made for expansion in the rate at which new village water supplies are being added. The DPVI allocation of $500,000 will provide for construction of up to 70 new supplies each year, and by 1975 more than two-thirds of all villages in the country will have piped water. A separate allocation ($50,000) is provided for a new water supply system at Korovou.

12.24 In rural areas outside villages, dug wells or boreholes fitted with simple hand pumps are the most economic means of furnishing an adequate water supply. The drilling of new boreholes will be accelerated during DPVI with a view ultimately to providing enough boreholes in all settled areas so that in no case will water be available at a distance of more than half a mile from any resident. As a first phase of this programme $375,000 is allocated in DPVI.

12.25 The rapidly escalating cost of furnishing emergency water supplies to drought-stricken areas in recent years has highlighted the need for a more rapid development of individual and settlement supplies in rural areas. The revision of the present very low charge for emergency supplies, together with Government assistance to self-help efforts in the installation of water tanks, deepening and cleaning wells, installation of hand pumps, etc. may be needed to reduce emergency water supply costs to Government during DPVI.

12.26 A school water and sanitation scheme under the control of the Ministry of Social Services and supported by WHO/UNICEF was introduced in 1970. The Plan allocation of $100,000 to this scheme in DPVI means that about ten schools per year can be provided with basic facilities.

12.27 Although hydrological investigations have been undertaken over a number of years the coverage and reliability of the data collected are inadequate for a full assessment and the formulation of a comprehensive plan for development of the country's water resources. An amount of $200,000 is allocated for this purpose in DPVI and it is expected that sufficient data will be available in the next several years for positive projects to be drawn up. Priority will be given to agricultural irrigation projects, particularly on the western side. The survey will also cover potential hydroelectric sites and its findings will be coordinated with special surveys to be undertaken for FEA.

12.28 No major changes are envisaged in the present water rates, which are low by international standards. The present policy of charging uniform rates on a country-wide basis will in general be maintained, except possibly in areas where there is need for special supplies for industrial, tourist or commercial purposes. The tariff policy aims in principle at achieving an overall balance between revenues and costs. Over the DPVI period total revenues including the cost of free supplies and supplies to Government are estimated at $4,870,000, whereas costs including capital charges and overheads are estimated at $5,047,000.

12.29 At the onset of DPVI there were broadly speaking three major categories of sewerage development needs :

(i) master plans for sewerage development in areas where population densities now or in the near future makes it economic and/or necessary from a health point of view to introduce water-borne sewerage schemes and to phase the implementation of these plans in coordination with other developments;

(ii) growth needs in areas where new residential or industrial developments are taking or will take place;

(iii) backlog needs in areas where the population density is already so high as to hamper further development or where present sewerage systems could represent health hazards.

12.30 As to master plans and their phasing, considerable progress was made during the last year of DPV, in particular for Suva. It is envisaged that master plans for the main urban centres will be processed and their phasing agreed to early in the DPVI period.

12.31 Government capital contribution to sewerage schemes will generally be limited to the cost of constructing trunk sewers and ocean outfalls. All other capital expenditures on sewerage will be charged to the consumers, either directly (by the Housing Authority or private land developers) or in the form of a capital charge. In the initial phase, however, the Government share will be much higher, partly because the trunks have to be constructed before reticulation can start, and partly because capital charges on treatment plants cannot be levied on the consumers until the area served is being reticulated.

12.32 The Government will spend about $2.0 million in DPVI on sewerage development for the following projects:

(i) for reducing the existing backlog needs $660,000 is allocated for trunk sewers, reticulation, pumps, treatment plan and outfall in the Suva/Lami area;

(ii) in new development areas in the north-eastern part of the Suva region (Kinoya) $560,000 is allocated for main trunk sewers, pumps and treatment plant;

(iii) for further extension of the Lautoka system $310,000 is allocated to trunks into the Drasa/Vitogo and Natabua area;

(iv) in the combined Nadi township, Nadi Airport and hotel area, $210,000 will be spent on trunks, treatment plant, etc.;

(v) for new sewerage systems in Ba, Labasa, and Nausori $260,000 is allocated.

12.33 Implementation of the Government schemes will imply that by the end of the DPVI period areas having a population of about 190,000 will have access to waterborn sewerage, as compared with about 20,000 in 1970. The population actually connected to a sewerage system is expected to increase from 18,000 to 85,000 in the same period.

12.34 New legislation will be introduced early in DPVI to empower the Government to enter land, to construct and maintain sewers, to collect rates and to take over private sewerage works and sewers. New charges will be introduced, designed to cover the running costs of the service and a reasonable part of the capital costs. The charges will be levied in the form of basic charges for connection to sewerage systems and additions to water rates and fixed property rates in areas served.

12.35 Table 12.1 presents a summary of Government's planned capital expenditure programme on water and sewerage for the DPVI period:

Table 12.1 : Capital Expenditure Programme, Water and Sewerage

($ thousand)

	1971	1972	1973	1974	1975	Total
Water Supplies						
— urban water supplies	540.0	635.0	535.0	285.0	340.0	2,335.0
— rural water supplies	175.0	175.0	175.0	225.0	175.0	925.0
— hydrological surveys	40.0	40.0	40.0	40.0	40.0	200.0
— school sanitation	20.0	20.0	20.0	20.0	20.0	100.0
Total, Water Supplies	775.0	870.0	770.0	570.0	575.0	3,560.0
Sewerage						
— Greater Suva Area	370.0	365.0	195.0	155.0	155.0	1,240.0
— Lautoka	50.0	50.0	80.0	80.0	50.0	310.0
— Nadi	30.0	50.0	50.0	40.0	40.0	210.0
— Ba, Labasa and Nausori	—	—	30.0	120.0	110.0	260.0
Total, Sewerage	450.0	465.0	355.0	395.0	355.0	2,020.0
GRAND TOTAL	1,225.0	1,335.0	1,125.0	965.0	930.0	5,580.0

CHAPTER 13

TRANSPORT AND COMMUNICATIONS

Transport

Transport facilities and their improvement are vital for economic growth, playing a key role in making land more productive, in marketing farm produce, in exploiting minerals and forests, in developing new industries and in facilitating export and import trade. They are also important in achieving social objectives, in the successful implementation of health and education programmes and in integrating a dispersed population, politically and culturally.

13.2 The need for transport facilities varies from country to country with geographical position, topography, climate, population distribution, and structure of economic activities. In all countries, however, investment in transport involves large amounts of capital. In the developing countries in Asia and the Far East, it is estimated that between 20 and 40 per cent of public capital expenditures is spent on transport development and transport programmes generally rank first or second in magnitude among items included in development plans. In addition, large amounts of private capital are spent on transport equipment.

13.3 In the earlier stages of development the need for new or improved transport facilities is fairly obvious (i.e. provision of main trunk roads between important population and production centres, port facilities for international trade, etc). As the economy reaches more advanced stages of development with more diversified economic activity, the need for further improvements of transport facilities tends to be more complex and decisions as to the size and composition of investments in transport less obvious.

13.4 At the onset of Development Plan V it was felt that Fiji had reached a stage where the complexity of future transport needs required a large scale investigation of the technical and economic aspects of transportation. This survey was carried out by a United Nations (UN) project which was completed in 1969.

13.5 The report from the UN recommends expenditure of about $40 million on transport facilities over the next 10 years, with about two-thirds of the total on roads, one-fifth on seaports and the rest on airports, equipment and Government vessels. It also contains suggestions as to the types of road projects to be given priority, and master plans for future development of the three main seaports (Suva, Lautoka and Savusavu) and recommends certain administrative and organisational changes. Some of the latter recommendations were implemented during the Plan period (taxi regulation, increases in port charges, establishment of a hydrographic unit) but at the end of the Plan period the impact of the report on new transport facilities was still fairly limited.

13.6 Government capital expenditure on transport during DPV amounted to about $8.8 million (23 per cent of total investment expenditure) of which $7.5 million was spent on roads, $0.7 million on sea transport and $0.7 million on air transport facilities. The concentration on roads reflects in part the fact that two main ports had undergone major improvements in the previous five or six years (total cost $8 million) and that Nadi Airport improvements were carried out by the member countries of the South Pacific Air Transport Council.

13.7 During DPV about 40 miles of the Viti Levu circum-insular road were reconstructed, 175 miles of new roads added to the public road system and about 120 miles of feeder and community roads up-graded to all weather roads. At the end of the DPV period the road system consisted of some 1,500 miles of public roads, 86 miles of urban roads, approximately 200 miles of institutional roads and 300 to 400 miles of private or community roads. During the same period a new shed for inter-island shipping was constructed at Suva and navigational aids throughout the islands improved. The facilities at Nausori and Nadi airports were also extended and improved.

13.8 The volume of transport operations expanded at a rate of about 11 per cent per annum in the DPVI period, much of the increase reflecting the impact of tourism. Passenger miles flown by Fiji Airways rose at an average rate of 22 per cent per annum and passengers landed at Nadi increased by 12.6 per cent per annum during the 1965-69 period. Passenger traffic by buses and taxis is estimated to have increased by 8.5 and 12.5 per cent per annum respectively during the same period. The number of passengers on cruise ships visiting Fiji nearly trebled from 1965 to 1969.

13.9 Goods traffic grew more slowly, partly as a result of the setback in economic activity at the beginning of the DPV period. The volume of international cargo handled through ports in Fiji actually declined in 1966 and fully recovered only in 1968. The volume of general cargo handled (excluding petroleum) did not exceed the 1965 level until 1969. The volume of cargo carried by the inter-island fleet also declined during the first years of DPV as a result of declining copra production. However, building and construction, and manufacturing (sugar and cement) expanded steadily during the period and contributed to an overall expansion in cargo handling. On the whole, goods traffic on roads is estimated to have increased by four to five per cent per annum over the whole period.

13.10 The greatest expansion of road traffic occurred on Viti Levu. Traffic on the Queen's Road rose by about 10 to 12 per cent per annum in 1965-68 and by 16 per cent per annum from 1968 to 1970. On other roads in Viti Levu traffic rose by eight to ten per cent per annum, whereas road traffic on roads in Vanua Levu, Taveuni and other islands grew at slower rates.

13.11 Growth in the volume of various types of traffic has on the whole been accompanied by a similar growth in the capacity of equipment. It is of interest to note however that in the personal transport sector in particular, some rationalisation and shift in composition occurred. This is evident in the taxi/rental car industry, where the total number of cars grew at a rate of 5.8 per cent per annum in the 1965-69 period, but where the growth was entirely due to a substantial increase of cars for hire and rental. The number of taxis actually declined, resulting in a much improved balance between supply and demand for this service. This development can largely be ascribed to the licensing regulations introduced in 1967.

13.12 The number of both buses and aircraft grew more slowly than the growth in overall traffic due to a shift, particularly in air transport, to larger units. The number of trucks rose at about the same rate as the volume of traffic. On the whole, with the important exception of inter-island shipping, a gradual increase in efficiency of the transport industry took place in the DPV period.

13.13 Labour engaged in the transport sector is estimated to have grown from about 5,200 persons in 1965 to about 7,000 in 1970, or by 7.7 per cent per annum. In 1970 about 3,000 were engaged in road transport, 2,400 in sea transport including deck and storage workers and 1,200 in air transport. Labourers engaged in maintenance work on roads, airports and ports are excluded.

Capital Expenditure Programme, 1971-75

13.14 **Basic Objectives.** The Government will continue its policy of improving and extending transport facilities in line with the need for such facilities resulting from general increases in economic activity and the standard of living. In view of the increasing disparities of income levels and general amenities between the rural and urban areas emphasis will be put on directing Government efforts in the transport sector to improve transport facilities in the rural areas, in particular in the outlying islands.

13.15 In agriculture the shift in emphasis from opening up completely new areas to more intensive cultivation of present land, more efficient marketing of agricultural produce and more use of inputs implies further improvements of transport facilities (upgrading of roads, construction of jetties etc.). However, some further extension of roads will also be needed, in particular in areas where expansion of the cultivation of coconut, bananas and some other crops is planned to take place. The objective of spreading the benefits of tourism throughout the country is also closely linked with the provision of new transport facilities, e.g. airports, jetties and roads. To derive the maximum benefits of the roading undertaken by private interests in the timber and mining industries, Government also intends, whenever feasible, to fit this roading into the public road net-work.

13.16 Table 13.1 shows the planned Government capital expenditure for transport in DPVI by main project. The total amount of $24 million represents 32 per cent of the DPVI programme compared with a 22.8 per cent share in DPV. About 78 per cent of transport investment is allocated to roads, 10 per cent to sea transport and 12 per cent to air transport. In addition about $5 million will be invested at Nadi Airport in the 1970-73 period, most of which will be financed by other members of the South Pacific Air Transport Council.

Table 13.1 : Capital Expenditure Programme, Transport

($ thousand)

	1971	1972	1973	1974	1975	Total
Suva-Nadi road reconstruction	500.0	2,400.0	3,600.0	3,600.0	3,600.0	13,700.0
Vanua Levu Trans-insular road	300.0	300.0	300.0	100.0	—	1,000.0
Tavua-Vatukoula road reconstruction	420.0	—	—	—	—	420.0
New rural roading	195.0	195.0	270.0	345.0	345.0	1,350.0
Upgrading of rural roading and bitumen sealing of roads in villages	80.0	80.0	80.0	80.0	80.0	400.0
Urban roading	160.0	160.0	160.0	160.0	160.0	800.0
Bridges	50.0	50.0	50.0	50.0	50.0	250.0
Road depots, plant, equipment and land	211.5	205.0	145.0	155.0	165.0	881.5
International shipping	8.0	55.0	65.0	40.0	—	168.0
Inter-island shipping	86.0	125.0	125.0	435.0	394.0	1,165.0
Tourist shipping facilities	30.0	20.0	—	—	—	50.0
Government vessels and equipment	220.4	90.0	152.6	110.0	63.0	636.0
Government shipyard	100.0	100.0	—	—	—	200.0
Navigational aids	23.5	23.5	17.5	17.5	11.5	93.5
Nausori airport facilities	750.0	750.0	200.0	40.0	—	1,740.0
Local airport facilities	15.0	150.0	204.0	60.0	60.0	489.0
Capital support to Fiji Airways Ltd.	—	500.0	—	—	—	500.0
Transport Division Headquarters	—	—	—	—	120.0	120.0
Miscellaneous	48.7	17.9	12.9	12.9	12.9	105.3
Total	3,198.1	5,221.4	5,382.0	5,205.4	5,061.4	24,068.3

13.17 Further details concerning the main projects shown in Table 13.1 are as follows :

13.18 **Suva-Nadi Road Reconstruction.** The present road was completed in 1938 and consists of a gravel road following more or less the line of the original tracks. Reconstruction of this road was recommended as early as 1959 (Burns Commission Report) and was also included in the DPV programme provided large scale financial assistance from abroad could be obtained. A full-scale technical and financial survey was completed during DPV and the World Bank approached for the financing of the foreign exchange component of the total cost. Agreement on a Bank loan for this purpose is expected early in the Plan period.

13.19 The reconstructed road will be a two-lane sealed carriageway with a design speed of about 50 miles per hour for most of its length. This will result in large direct savings in vehicle operation costs (estimated at some 35 to 45 per cent) and in a reduction in road maintenance costs. Indirectly, it will stimulate economic development of the region served by the new road, especially tourist development, but also agriculture and other industries. The road links Viti Levu's two main centres of population and directly and indirectly will influence about 70 to 80 per cent of the population on this island. It will thus greatly stimulate economic and social integration of the main island.

13.20 **Vanua Levu Transinsular Road.** This project consists of constructing about 20 miles of new road which will connect the present road from Labasa to the road coming from Savusavu (total distance about 45 miles). The road will be built as a gravel surfaced main road with a design speed of 40 to 50 miles per hour on flat land and 25 miles per hour in hilly sections. This road will provide a link between the eastern and western road network of Vanua Levu. About 50,000 people will be affected directly or indirectly by the road. The road will result in substantial savings in travel and freight costs between Savusavu and Labasa. Furthermore, tourist development in Savusavu is likely to make economic a daily sea-service from Suva to Savusavu. On this basis substantial savings in transport costs for passengers and goods between Suva and Labasa would also appear feasible. Different climatic and soil conditions on the eastern and western sides of Vanua Levu should result in increases in the interchange of locally produced goods. It will also obviate the need for the duplication of infrastructure and other service facilities in the two areas.

13.21 **Tavua-Vatukoula Road Reconstruction.** This road of about four miles connects the gold mine with the main circum-insular road on Viti Levu. The gold mine gives employment to about 1,600 persons, supports a population of about 5,000 people and produces exports valued at more than $3.0 million per annum. The present road is regarded as sub-standard relative to its present traffic flow. The feasibility of a reconstruction of this road presupposes that the mining activity will be continued for at least a 20-year period.

13.22 **New Rural Roading.** Extension of the road network envisaged in DPVI is motivated partly by economic and partly by social considerations. Agricultural production targets imply that it will be necessary to construct a substantial mileage of new feeder roads in Lau, Lomaiviti and Kadavu and a lesser amount in the Central Division. In addition some further roading will be justified in other parts of Fiji, partly to improve access to markets for agricultural products, but mainly to socially and culturally integrate isolated areas.

13.23 A major road project will be the road to the Savusavu west coast area with a population of about 3,300, which at present has access only by sea. A total of $375,000 is allocated to this road, which is likely to extend the road up to 10 miles into this area and which will give a substantial part of the population in this area access to a public road.

13.24 A total of $975,000 will be spent on other new rural roading, of which $500,000 is in the Eastern Division, $160,000 in the Northern Division, $200,000 in the Central Division and $115,000 in the Western Division. The distribution of individual projects within each division will be decided in conjunction with Rural Development Committees. As the potential traffic on some of the smaller islands is likely to be much less than on some of the larger islands, a relaxation or reduction of the standard of roads in these areas is contemplated. This will result in a greater road mileage for the same amount of money.

13.25 **Upgrading of Rural Roading.** At the end of the DPV period there were about 21 miles of sub-standard public roads which required upgrading at an estimated cost of about $80,000. In addition to these, upgrading will need to be carried out on some 40 miles of community roads at a cost of $200,000. The upgraded roads will contribute to reducing transport costs for agricultural produce and inputs. They will also provide all-weather access to the main road system for people living in these areas. An amount of $120,000 allocated to the programme of bitumen sealing of roads traversing villages and settlements will provide about 50 villages and settlements with such amenities. In addition the Government will provide assistance to local self-help transport schemes in the form of culverts, timber, gravel and other materials and the use of the Agriculture Department's land conservation unit.

13.26 **Urban Roading.** A relatively large proportion of Government capital expenditure on roading has in recent years been allocated to urban roading, in the form of contributions to main through roads (100 per cent contribution), urban roads which are extensions of secondary roads (75 per cent) and of urban roads which are extensions of country roads (50 per cent). In addition Government has made capital grants for major road construction in Suva and Lautoka. Further fairly rapid increases in urban population and urban traffic expected in the next five years will necessitate a continuing high rate of investment in urban roading in order to prevent congestion and maintain safe driving conditions. However, in view of the relative prosperity of the urban areas and the more rapid economic expansion projected in these areas, it is envisaged that a larger portion of urban roading investment must be financed by the municipalities. Government's contribution to urban roading has therefore been reduced from about $1,170,000 in DPV to a planned $800,000 in DPVI.

13.27 **Bridges.** In addition to the construction of bridges on new roads and on the Suva-Nadi road, $250,000 is allocated for the reconstruction of some old and narrow bridges, especially on the King's Road in the Western Division and on main roads in Macuata.

13.28 **Works Depots, Plant and Equipment.** With the expected growth in traffic and extension of the road network in outlying islands some new and extended road depots will be required, and $230,000 is allocated for this in DPVI. Expansion of the volume of building and construction work by the Public Works Department in DPVI will also necessitate additions to the plant and equipment pool ($500,000).

13.29 **International Shipping.** A total of $168,000 is allocated for international shipping facilities. Two projects for extension of cargo storage facilities are included in the DPVI programme, one at the King's Wharf in Suva consisting of extending a shed by 6,600 square feet and sealing a hard-standing on the wharf, and one at the Queen's Wharf in Lautoka. These extensions are expected to meet the need for increased storage facilities of international cargo in the next five years, although occasional congestion may result when removal of cargo from the wharf area is delayed. If container traffic should develop on a major scale special facilities for this type of traffic may be needed during the Plan period.

13.30 **Inter-Island Shipping Facilities.** With a view to improving the situation for people living in the outlying islands in general, to support agricultural development and to spread tourist traffic, a concentrated effort will be made during DPVI to improve inter-island shipping facilities. A total of $1,165,000 is allocated for this purpose.

13.31 A new 800-foot inter-island wharf and shed storage of 20,000 square feet will be constructed along the harbour side of Niagara Street at Walu Bay in Suva. It is expected that the new wharf will result in a sharp reduction in the turn-around time of inter-island vessels at Suva and in a virtual disappearance of double and triple berthing, with significant savings in time and cost.

13.32 Trade at Savusavu is expected to increase significantly in the next five years in view of the development of logging and mining, the establishment of a dessicated coconut factory in Savusavu, the expansion of tourist traffic and the completion of the trans-insular road. An allocation of $100,000 is provided in DPVI for land reclamation and improvement of the existing wharf. A fully developed international port in this area is estimated to cost about $2.5 million.

13.33 A new open shed at the King's Wharf in Lautoka will serve cargo and passengers in the Yasawas' trade.

13.34 A new jetty at the north-east of Rotuma Island will be built at a cost of $60,000 during DPVI, mainly for copra loading. The berthage cost on cargo to and from ships lying offshore is high ($3.33 per ton) and a jetty will result in a substantial reduction of these costs.

13.35 Some $250,000 is set aside in DPVI for the construction of other jetties in the Fiji archipelago. The location of these jetties will be decided after studies have been made on the volume of freight and passenger traffic expected in various areas and on the hydrographic conditions in these areas. The location of jetties will be intimately related to the physical and administrative possibilities of centralising the loading of copra by providing a road network with access to these jetties. It will also depend on the willingness of copra producers to utilise these jetties instead of the present beach-loading. The establishment of jetties in the outlying islands could greatly reduce the number of berthing points at present necessary for copra shipment and make it economic to operate larger and faster vessels. In view of the fact that copra represents a major crop in these areas and practically the only cash crop, a reduction in freight costs, at present representing some 10 to 15 per cent of the price of copra and five to ten per cent of the average price of general cargo shipped from Suva, will have an appreciable effect on the standard of living, which is lower than in most other rural areas. Indirectly, cheaper transport will also encourage other agricultural and tourist development.

13.36 The Government has in principle accepted the need to subsidise inter-island shipping operations and $100,000 is allocated for this purpose in DPVI. Subsidies will mainly be directed towards shipping serving remote areas where the volume of traffic will make it uneconomic to operate regular routes with modern vessels suitable for this type of traffic. Further studies will be required before the best form of subsidy can be decided.

13.37 It is realised that the establishment of central loading points with jetties, the construction of roads in connection with these jetties and a system of subsidies to inter-island shipping are closely interrelated. In order to derive the maximum benefits from these various measures it will be necessary to determine which are the essential routes in the inter-island transport services, the desirable frequency of the service on various routes and the freight rates appropriate for growers in various areas. Centralised loading will imply that some growers will have to transport their copra by road, the cost of which might have to be wholly or partly compensated in order to make centralised loading attractive to the individual grower. In the first stage, the co-ordination of these various measures will depend on voluntary co-operation from growers, shipowners and processing firms. If this should prove unsatisfactory full regulation of the inter-island shipping services may be introduced, which will involve the licensing of various routes to the exclusive service of individual shipowners.

13.38 **Government Vessels.** The DPVI programme will involve the construction of ten vessels and four barges of which four vessels and two barges will replace existing ones. There will be a net expansion of the number of vessels for educational and medical services and for the Public Works Department (landing craft). The new vessels will on the whole be somewhat larger than those they will replace. A new dredge pontoon, including crane and grab dredge will result in a substantially increased capacity for dredging work. The programme also includes the conversion of a lighter for beaconing work.

13.39 On the whole the principal function of Government vessels is to transport personnel engaged on official duties. The policy of supporting commercial inter-island shipping by using private vessels for carriage of Government cargo will be continued. Due to the irregularity of service on some routes and the small size of the private vessels it will, however, still be necessary to use Government vessels to carry some general cargo and special cargo such as heavy road-building equipment. Single side-band radio equipment on all Government vessels will be required from 1972 according to new International Telecommunications Union Regulations. This will require a conversion of the present double side-band equipment. The cost of this conversion is estimated at $28,000, spread over five years.

13.40 **Government Shipyard.** The Government shipyard is principally engaged in maintenance and repair work on Government vessels and in constructing new vessels for the Government fleet. In recent years it has also taken on contract building for the private sector and a 121-foot steel tourist vessel was launched in 1970. Commercial shipyards are expanding, but their total capacity is still smaller than that of the Government shipyard. It is considered that if the existing facilities can be organised in an efficient and integrated manner, an important shipbuilding and ship repair industry could be built up within the next five years. The nucleus of such an organisation would be the Government shipyard. Several foreign firms have shown interest in participating in such a venture and the Government was in 1970 actively considering proposals for entering into a consortium with commercial shipbuilders with a view to leasing the Government shipyard for operation on a purely commercial basis.

13.41 In the event that the shipyard is not leased, the Government will have to continue operating the yard. Prospects are good for further substantial increases in the volume of contract-building and repair works for the private sector. As it would be desirable to expand this industry, $200,000 is allocated in the DPVI programme against this possibility. It is realised that this allocation will mean a substantially slower expansion than leasing to a larger operator.

13.42 **Navigational Aids.** New lights will be erected at Nanuku Levu, Vatoa, Matuku and near Vatu-i-Ra, and two existing lights near Vatu-i-Ra will be reset. These new lights will ensure improved safety on some of the main approaches to Fiji and also facilitate night navigation. About 30 new beacons per annum will be added during the DPVI period. New beacons will in particular be needed in the Yasawas, Taveuni/Rabi/Qamea, Vanua Balavu and Kadavu waters. For improving passages on the inter-island routes, reef blasting will be continued at about the same rate as in recent years ($10,000 per annum).

13.43 **International Airports.** The construction of a new runway of 6,000 x 150 feet at Nausori airport will meet the requirements of the medium jet aircraft to be introduced on inter-regional flights during the DPVI period. It will also enable the installation of safe approach lighting for 24-hour-a-day operation.

13.44 The present Nausori air terminal is approaching full utilisation. Because of limited financial resources and building capacity it will, however, not be possible to build a new terminal in the next five years. Provisions have therefore been made to extend the present building on a temporary basis.

13.45 The facilities at Nadi International Airport will be further extended in the next few years to meet the requirements of the jumbo jets. Members of the South Pacific Air Transport Commission have agreed to a three-year investment programme of about $5 million starting in the second half of 1970 which will increase the capacity of the terminal building and associated services and facilities, as well as providing additional turning space on the main runways. The Fiji portion of the cost is estimated at $440,000 of which $200,000 is provided for in DPVI.

13.46 **Local Airport Facilities.** Extension of the present runways at Labasa, Savusavu and Matei together with sealing and provision of aircraft parking are provisionally included in the DPVI programme. These extensions will permit the operation of larger aircraft at these airports.

13.47 There are however some aspects of these extensions which are not yet fully explored, and which could have an important bearing on the feasibility of the projects. Certain engineering problems at Savusavu have not yet been fully investigated. The effect of the transinsular road on the volume of traffic, and the possible availability of new types of aircraft more suitable for short-distance service will also need to be taken into account before a final decision is made.

13.48 Air service by amphibian aircraft to some of the outlying islands (Lakeba, Kadavu, Vanua Balavu), which has been operated since 1969, shows that a traffic potential sufficient to warrant airstrips on some of these island may be expected in time. Difficulties in operating amphibian aircraft in the waters near Lakeba seem to justify building an airstrip in this area during the next five years and $60,000 is allocated for this purpose in DPVI. Feasibility studies of possible airstrip sites on Kadavu will also be made during the period.

13.49 **Fiji Airways — Capital Support.** In order to assist Fiji Airways in the financing of new aircraft, the Government may need to increase its capital contribution to this company by $500,000 during the DPVI period.

13.50 **Transport Division Headquarters.** A start will be made on new headquarters for the Transport Division during DPVI. The cost of this project is estimated at $240,000 of which half will be spent in DPVI.

Transport Administration and Operation in DPVI

13.51 Some of the projects included in the investment programme for transport are not worked out in detail. Further investigations and studies will also be required to give effect to an integrated development of land, sea and air transport facilities, in particular in the outlying islands. It is envisaged early in the DPVI period to set up a Transport Planning and Policy Unit which will deal with these questions and formulate plans for future investment in transport.

13.52 **Road Transport.** No changes are envisaged in the present policy as regards regulation of the number of taxis, rental and hire cars and buses. During the DPVI period introduction of fare schedules and meters for taxis is envisaged in the larger urban areas. Stricter enforcement of regulations of the maximum axle load and speed of trucks is also contemplated and consideration will be given to raising the present limits on the new Suva-Nadi road.

13.53 **Sea Transport.** A separate department in the Ministry of Communications, Works and Tourism responsible for all marine affairs was established early in the DPV period. This department took over, *inter alia,* the responsibility of building, operating and maintaining all Government vessels. The new post of traffic manager for the co-ordination of port operations and a hydrographic unit were also established during the period. It is envisaged that further strengthening of the department will become necessary in connection with the implementation of the programme for the improvement of inter-island shipping. If the Government is going to continue the operation of its shipyard, consideration may be given to establishing a special authority for this purpose. Further investigation will also be made of the feasibility of establishing an official port of entry in Vanua Levu and of the desirability of setting up a Port Authority to control the operation and development of all of Fiji's ports. Scales of port charges will be kept under review.

13.54 **Air Transport.** During the next few years it is envisaged that the Department of Transport and Civil Aviation, in the Ministry of Communication, Works and Tourism will take over the responsibility, at present held by New Zealand Civil Aviation Department, of administering the international airport at Nadi. It may also prove desirable to combine with this the administration of regional airports in the South Pacific.

Posts and Telecommunications

Postal and telecommunications services were further extended and improved during DPV. During the period a basic trunk system between the main population centres was completed and manually operated exchanges were replaced with automatic exchanges. By the end of the period about 85 per cent of all telephones were connected with automatic exchanges as against 62 per cent in 1965.

13.56 The number of exchange lines rose from 7,027 in 1965 to about 11,000 in 1970 and working telephones rose from 11,298 to about 17,000 or by 8.7 per cent per annum. The expansion of the telephone system was on the whole adequate to cater for the increased traffic with dispatch and efficiency. Circuit congestions were few and the waiting list of new applications relatively short, although increasing from four per cent in 1965 to about 10 per cent of the number of working telephones in 1969. A new service was introduced in 1966 with the opening of an automatic telex exchange. The capacity of this exchange was doubled in 1968 and by the end of DPV around 65 automatic telex exchange lines were in operation.

13.57 Areas outside population centres on the four main islands and on outlying islands were in 1965 incorporated in the communications system by means of about 54 high frequency (HF) and about 10 very high frequency (VHF) fixed radio stations. During the DPV period twenty-four of these stations were re-equipped with single side-band radios and 10 additional VHF transceivers in various isolated communities were installed. These measures have improved telecommunication services in the outlying areas but since many of these stations are not maintained and operated by Government frequent service breakdowns have occurred. Moreover, the quality of transmission over HF stations, in particular on the double side-band, is poor and is highly susceptible to adverse weather conditions.

13.58 Telephones available to the general public in the 10 townships in Fiji increased from 77 to 130 during DPV, reaching an average of about 700 persons per public telephone. The regional telecommunications network was also further expanded during the DPV period.

13.59 Postal services were improved mainly by replacing some old over-crowded wooden huts with modern buildings and by opening up new postal agencies. New post offices were built in Rakiraki, Lami, Navua and Lomaloma during the DPV period. In addition the new General Post Office in Suva was completed. The number of post offices and postal agencies increased from 132 in 1965 to 160 by the end of 1969.

13.60 Telephone charges were increased in 1966 (20 per cent general increase in all charges), in 1969 (20 per cent increase in local and trunk call charges) and in 1970 (small increases in some charges for inter-regional calls). Postal rates on ordinary domestic mail were reduced in 1969 by about 20 per cent.

13.61 Over the 1964-69 period revenue from, and recurrent expenditure on, postal services rose by 11.2 per cent and 16.3 per cent per annum respectively, whereas revenue from, and recurrent expenditure on, telecommunications rose by 20.5 per cent and 9.0 per cent per annum respectively over the same period. Total revenues and expenditures over the DPV period are summarised in Table 13.2.

Table 13.2: Posts and Telecommunications, Revenue and Expenditure, 1966-70

	Posts	Telecommunications	Total
Revenue	4,199	6,988	11,187
Recurrent Expenditure	2,798	3,521	6,319
Excess Revenue	1,401	3,466	4,867

13.62 Recurrent expenditures in Table 13.2 do not reflect interest on capital invested, depreciation on capital assets, or value of services rendered to or by other Government departments. On a commercial basis the surplus is likely to be appreciably smaller than shown in the table.

13.63 Capital expenditure on posts and telecommunications during DPV is estimated at about $4.3 million, of which about $0.3 million was on postal services.

Development Programme, 1971-75

13.64 In general, the postal and telecommunications services will be expanded to the extent necessary to meet the growing need for such services during DPVI. In addition, the quality and range of telecommunications services in the outlying islands and remote rural areas will be improved.

13.65 A total of $5,727,000 has been allocated to the Posts and Telecommunications sector in DPVI. This is substantially less than the departments have estimated to be required to fully meet the demand for new postal and telecommunications facilities in DPVI, but is the amount which the Government feels can be spent on these services without seriously upsetting the balance between allocations to this sector and other sectors, within the financial framework of the Plan.

13.66 New post office buildings (with quarters) will be built at Kabara, Nabouwalu and Sigatoka; combined post office and telephone exchange buildings will be constructed at Deuba, Nasinu and Tavua, and a telephone exchange building at Labasa.

In addition, a workshop will be erected in Lautoka. The first stage of a new central building in Suva is also scheduled to be undertaken in DPVI, together with some alterations to the existing building.

Table 13.3: Capital Expenditure Programme, Posts and Telecommunications

($ thousand)

	1971	1972	1973	1974	1975	Total
Buildings	40.0	90.0	50.0	110.0	160.0	450.0
Telephone exchanges	330.5	341.5	329.0	331.0	208.0	1,540.0
Subscribers' network and instruments	304.0	305.0	315.0	352.0	391.0	1,667.0
Trunk system	131.0	260.0	328.0	175.5	45.5	940.0
Telegraph and telex services	85.0	25.0	25.0	31.0	35.0	201.0
Radio communications	96.0	55.0	122.0	137.5	173.5	584.0
Miscellaneous	74.0	59.0	64.0	69.0	79.0	345.0
Total	1,060.5	1,135.5	1,233.0	1,206.0	1,092.0	5,727.0

13.67 During DPVI it is planned to replace most of the remaining manual exchanges with higher capacity automatic exchanges, including those in Labasa, Navua, Rakiraki and Tavua. New automatic exchanges will be established at Deuba, and in the area between Suva and Nausori to cater for expected development in these areas. In addition the capacity of existing automatic exchanges in Lami, Lautoka, Nadi, Namaka, Samabula and Suva is to be increased. Trunk exchanges inside Lautoka and Suva and between the main population centres will also be extended. This will include a new microwave system between Suva and Sigatoka and between Viti Levu and Vanua Levu, together with expansion of the system on Vanua Levu and Taveuni.

13.68 Plans for expansion of basic telephone facilities during DPVI are geared to an increase in the number of telephones of 10.5 per cent per annum and an increase in telephone traffic of 17 per cent per annum. This implies that the number of working telephones will increase from about 17,000 in 1970 to 28,000 by the end of 1975 and the number of exchange lines will increase from 10,000 to 15,500 in the same period. Although new telephone facilities will give room for a somewhat faster rate of growth in overall telephone use in DPVI than in DPV, the appreciably faster growth in the economy and per caput income projected in DPVI may, with the present tariff structure, result in a somewhat faster growth in demand for service than can be comfortably met during the Plan period.

13.69 More than four-fifths of the total capital expenditure allocated for posts and telecommunications during DPVI will be devoted to extensions of telephone facilities. The various components of telephone facilities (buildings, exchanges, trunks, subscribers net work and instruments), are intimately interconnected and it is not possible for any long period of time to expand any of these components without also expanding the others. In order to provide for an expansion rate of say 12 per cent per annum in DPVI (instead of about ten per cent per annum as envisaged) an extra amount of between $1.0 and $1.3 million would have to be invested.

13.70 In view of the tendency for demand to grow faster than the programmed expansion of facilities, the Government will be giving active consideration to controlling demand for new telephones by appropriate changes in tariffs, in particular those applicable to residential telephones which at present represent about half of the total number of working telephones.

13.71 Capital allocated to improving telecommunication facilities in the rural areas and in the outlying islands will be greatly increased in DPVI, with the following breakdown:

outer island and rural area radio telephone stations	$ 50,000
VHF and microwave radio stations in outlying islands	$118,000
equipment and installations	$416,000
Total	$584,000

13.72 Provisions are made for improved communications for the Lau island group by use of VHF radio links in tandem, working into the main telephone system by direct dialling. Radio links will be extended from a new radio station on Taveuni to Vanua Balavu, Lakeba and Kabara. Initially, a call office type of service will be provided. Later the service could be developed to provide full telephone service at normal rates.

13.73 The Plan also includes expansion of VHF radiophone services for private rental at fixed points in remote areas, in land vehicles and on vessels in Fiji waters. These VHF services will complement and progressively replace present HF radios at various points, which will result in services easier to operate and giving better communication. Provision is made for about 50 such services during DPVI.

13.74 Some 13 existing official and 'provincial' radiotelephone stations which have reached the end of their useful life will be replaced and 17 new stations installed in places now lacking service. These stations will be maintained and operated by agents appointed by the Government. The radio stations will operate by HF radio or by VHF radiophones as appropriate, according to location and technical considerations.

13.75 Access to telephone service for the general public in the population centres will be improved by giving support to private establishments (shops, restaurants, petrol stations) willing to operate a public service. This will be a less costly method than provision of telephone booths, which are expensive to maintain because of frequent vandalism.

13.76 The telex service offered to the general public in 1966 has been remarkably popular and profitable. It is planned to double capacity in 1971. Further expansion of the inter-regional radio communications network is also programmed at a cost of $175,000.

13.77 **Revenue and Recurrent Expenditure.** Projected revenue at present tariff rates is expected to continue to exceed recurrent expenditure during DPVI as shown in Table 13.4. The excess revenue figure of $9 million shown in the table takes no account of interest or depreciation, allowance for which would of course considerably reduce the surplus. However, the comparable figure for the DPV period was about $5 million.

Table 13.4: Estimated Revenue and Recurrent Expenditure, Posts and Telecommunications, 1971-75

($ thousand)

	Posts	Telecommunications	Total
Revenue	6,642	13,791	20,433
Recurrent Expenditure	5,156	6,231	11,387
Excess Revenue	1,486	7,560	9,046

CHAPTER 14

COMMERCE

The Commerce sector is principally represented by wholesale and retail trade activities. After agriculture, it is the largest sector in the economy, contributing in 1970 an estimated 16 per cent of Gross Domestic Product. The contribution to GDP over the period 1966-70 and forecast for 1975 are presented in Table 14.1. Net output will grow over DPVI at a projected 6.9 per cent per annum rising from $28.0 million in 1970 to some $39.1 million in 1975. The comparable real terms growth rate over DPV was an estimated 4.5 per cent per annum.

Table 14.1 : Contribution of Commerce to GDP

($ million, current prices)

	1965	1966	1967	1968	1969	1970	1975[1]
Commerce, Value added	21.2	20.5	22.0	23.6	26.0	28.0	39.1

1 — 1970 prices.

14.2 Imports of consumer goods, food, beverages and tobacco in 1969 were valued at $32.5 million (42 per cent of total imports). These were overwhelmingly destined for the commerce sector and represented about one quarter of its total turnover. Durable consumer goods represented about $10 million of total imports of which some $5.5 million were duty-free items mainly destined for purchase by tourists. Food imports were roughly $12.5 million and semi-durable and non-durable consumer goods were some $10 million.

14.3 Commerce has a substantial employment role, especially in the urban areas. Employment in this sector is projected to rise to 14,200 in 1975 from a 1970 level of 11,200. A large percentage of these totals represents self-employment or family labour rather than wage-employment.

14.4 Commerce is an area where local enterprise is already substantial. It must also be a major area of urban employment of local manpower. In 1968, the structure of employment in commerce was as follows:

Proprietors	9%
Managers	5%
Clerical	19%
Other wage-earners	40%
Family/owner-operators	27%

Problems of Distribution and Market Size

14.5 Two major factors operate to limit commercial activity in Fiji — the size of the market and its geographical character. The former limits the total turnover and, hence, the number of firms which can operate on a large and therefore efficient scale.[1] The latter complicates and limits competition in the distribution of goods. Both factors inherently and unavoidably increase costs and at the same time create circumstances which favour the introduction of monopolistic elements into commerce.

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[1] This is true even though economies of scale in wholesaling and retailing are relatively limited compared with other economic activities.

14.6 Three distinct classes of goods enter the distribution network; imports, local manufactures and local primary produce. Imports enter only at Suva, Lautoka and Nadi whilst most local manufactures originate in the major towns of Viti Levu. Distribution of these goods involve both land transport (especially on Viti Levu) and the inter-island transport system by sea and air.

14.7 Costs of transportation and handling can represent a large proportion of the final prices of goods. Apart from the various physical operations and movements often necessary, several different firms are frequently involved. In the extreme case this could involve import agent, shipping agent, shipper, land transport company, sea/air transport company, wholesaler and retailer. Often, however, these roles are combined, especially in the case of the larger concerns. Overall, there is usually a substantial handling/transportation charge borne by the final consumer.

14.8 Marketing of local primary produce is usually simpler, less frequently involving inter-island transportation. However, the marketing structure in this sector is poorly developed. There is a wide need for more efficient channels linking the many small producers of perishable products to the major consumption centres. This need exists both in the outlying islands and in the rural areas of the two main islands.

14.9 The geographical distribution of the Fiji market is indicated by the pattern of population. Based on the 1966 Census, most people live in the two main islands, 72 per cent on Viti Levu and 15 per cent on Vanua Levu. Within Viti Levu, roughly 40 per cent live in the six main towns (nearly one-quarter in Suva alone) while just over 60 per cent are in rural areas. On Vanua Levu less than one-fifth live in the two main townships. Overall, 69 per cent of the Fiji population live in rural areas, of which 13 per cent are in the outlying islands. Although this population pattern does not fully reflect the physical pattern of consumption, due to the higher level of urban incomes, the tendency of urban households to consume more manufactures and imports and the tendency for rural people to shop in urban centres, it is clear that there is an extensive role for transportation in the distribution process for local manufactures and even more so for imported goods.

Constraints on Competition

14.10 The structural factors inherent in the Fiji situation create distinct limitations on the level of competition and foster the development of monopoly type conditions and behaviour. Under these circumstances, normal free market forces fail to operate and the rules of classical economics cannot apply; there is frequently a divergence between observed prices and those appropriate to free competition. This divergence represents a cost to the Fiji economy *over and above* the burden of increased costs arising from the inefficient scale of commercial operations and the unavoidable high level of internal transport costs. These monopoly tendencies have many facets which unfortunately tend to be self-reinforcing, and hence require clear policies if Government seeks to reverse them in order to reduce their cost to the economy.

14.11 The marketing of local manufactures can experience monopsony conditions.[1] A commercial outlet might also be the importer or producer of a competing product to the local manufacturer and hence choose to deny the latter an outlet. Monopoly conditions are likely to arise with imports where one concern is the sole agent for a particular brand of goods, or especially so when one concern controls the sole agency for a wide range of goods which might otherwise have competed. When import agencies are held by retail concerns there is a clear possibility of restricted competition since the agent-retailer controls the price and volume of any goods bought by a potential competing retailer.

14.12 These and other monopoly effects can only occur when the economic system is highly concentrated. Such concentration is inherent in a small economy and is certainly true of Fiji where a very limited number of companies dominate the commerce sector. This domination is reinforced by extensive vertical and horizontal integration with inter-linked companies both within the retail sector and with the transport sector, import agents and wholesalers; the same commercial groupings being dominant in these related economic activities.

Policies and Solutions

14.13 There are no easy solutions to these problems. They are inherent in the structure of a developing economy and especially accentuated by the geographical characteristics of Fiji. Government cannot remedy these basic factors; its concern can only be to see that the implicit and avoidable costs to the economy are minimised rather than allowed to escalate.

14.14 Two main approaches are applicable — measures to minimise monopoly behaviour and profits, and measures to maximise competition. Both are complementary but the latter are more appropriate to Fiji circumstances, although legislation and other administrative measures to deal with these problems are widespread in both developing and developed countries.[2]

14.15 Competition can be increased by a number of approaches; the further development of co-operatives — retail, wholesale and marketing — may well be the most appropriate, since such bodies are already being established in Fiji. However, to be effective they need capital and manpower resources comparable with the larger commercial organisations and there is significant scope for Government and Development Bank assistance to achieve these operational requirements. New marketing operations need to be co-ordinated with current co-operative activities in the commerce sector concentrating especially on expansion of markets for local primary produce.

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[1] i.e. a situation where there is a monopoly buyer as opposed to a monopoly supplier.

[2] e.g. Monopoly and Restrictive Practices legislation in the United Kingdom and Anti-Trust laws in the United States.

Government assistance via the proposed National Marketing Authority and the expert staff of the Ministry of Commerce, Industry and Co-operatives is clearly very relevant here.

14.16 Assistance to small retail units will clearly be more indirect and cannot substantially alleviate their problems *vis-a-vis* the control by larger concerns of their sources of supply, especially for imported goods. Assistance will mainly be via improved training facilities and marketing advice. The role of loans for working capital and expansion via the commercial banks and Development Bank may need to be reviewed if further assistance is considered appropriate.

14.17 Where encouragement to competition falls short of dealing with monopolistic situations, many countries have adopted an approach of administrative investigation and regulation. The common disadvantage of such measures is that they are cumbersome and often too rigid. Government will need to review the appropriateness of any action in this field against a background of the need to protect the defined public interest and the success or otherwise of policies designed to create competitive conditions.

14.18 Freight costs and operations are another sector where Government must evaluate the public interest. Consideration will be given to a programme of subsidies to certain inter-island shipping operations (see Chapter 13).

14.19 The consumer himself has a major role to play in encouraging competition; by his selectiveness, he can encourage more reasonable price behaviour by the retail sector. It is to be hoped that private individuals might create consumer societies analogous to those in Europe and North America which will act as a collective voice for the consumer in the market place and the political forum. They might also publish critical reviews of consumer services including comparisons of prices and services provided.

14.20 Chambers of Commerce and other retailer associations should also have an increasing role in representing the interests of their members to Government in the context of restrictive practices amongst suppliers and other impediments to free competition.

National Marketing Authority

14.21 A central element of Government policy in this sector with clear implications for the future activities of the agricultural and industrial sectors is the proposed creation of a National Marketing Authority. Such authorities are frequently a most successful Government instrument for enhancing competition and improving distribution in developing countries. For this success, such an authority needs dynamic leadership, clear powers and the financial and technical resources to act in an effective, commercial manner.

14.22 The National Marketing Authority as planned will carry out advisory, regulatory and executive functions with the object of developing and rationalising the marketing of local products. The Authority will co-operate with other bodies or persons with parallel marketing interests and in particular :

(i) collect, interpret and disseminate market and marketing data;
(ii) make technical and/or economic improvements to marketing where appropriate in co-operation with private enterprise and the co-operative movement;
(iii) establish other marketing organisations where necessary;
(iv) establish and develop new home and export markets.

14.23 While the Authority will have powers to act as a trader, its basic tasks in most cases will be to facilitate marketing by private and co-operative agencies. To this end the Authority will where necessary create or financially assist warehousing, storage, grading and handling facilities. It will also assist in the provision of appropriate managerial and other specialised personnel.

14.24 The range of activities within the scope of the Authority is consciously broad since its success is intimately linked to its flexibility and adaptive powers. It is planned that activities will only be expanded as the Authority gains the appropriate administrative skills and resources. Most of the initial efforts of the Authority are currently planned to centre on five key activities :

(i) produce marketing. A Produce Marketing Corporation will have the objective of developing the marketing services already provided by the Fijian Affairs Marketing Scheme for selected produce from small farmers. It will also seek to help to provide storage, grading and warehousing facilities and to start new marketing projects in other areas;
(ii) rice marketing. Studies will be made to define an appropriate rice marketing organisation in the context of the new irrigation schemes. Storage and processing facilities would be created as necessary;
(iii) fish marketing. Plans in this area will need to be co-ordinated with the Fisheries Division which is expanding the present Government sponsored fishing programme. Freezer facilities and freezer delivery trucks would be provided as necessary;
(iv) handicraft marketing. Facilities and managerial aids necessary will be identified; these might include provision of warehousing, grading and storage facilities and assistance with centralised wholesaling and retailing for local producers;
(v) produce wholesale markets. Wholesale markets may be established as appropriate in urban areas.

14.25 This major scheme has been allocated the following resources in the DPVI 'Capital Programme under the head 'Marketing Division'.

Table 14.2 : Capital Expenditure Programme, Marketing Division
($ thousand)

	1971	1972	1973	1974	1975	Total
Marketing Authority	50.0	75.0	100.0	100.0	125.0	450.0
Marketing Warehouses	—	25.0	25.0	25.0	25.0	100.0
Total	50.0	100.0	125.0	125.0	150.0	550.0

CHAPTER 15

CO-OPERATIVES

The Co-operative programme is an important vehicle for integrating the rural population into the modern economy. Co-operatives play an educational role while at the same time enabling small communities to increase their productivity by taking advantage of economies of scale which would not otherwise be available. The creation and operation of well managed co-operatives will thus play a major role in economic growth in the rural areas.

15.2 In recent years the Co-operative movement has expanded rapidly. This has led to the formation of numerous poorly planned and financed societies which have inadequately trained officers and committees. As a result the staff of the Department have had to be unduly concerned with the day-to-day administration of societies. Some of these characteristics are clearly illustrated in Table 15.1, which shows a rapidly increasing number and membership of co-operatives but declining average turnover per member, and in the case of thrift and credit societies, falling average deposits and loans.

Table 15.1 : The Scale of Co-operative Activity

	Units	1968	1969
Co-operatives [1]			
— number	no.	583	851
— membership	no.	18,800	26,400
— turnover	$m	4.4	5.1
— turnover per member	$	235	194
Thrift and Credit Societies			
— number	no.	83	134
— membership	no.	1,300	2,000
— shares and deposits	$	57,200	79,400
— shares and deposits per member	$	44	40
— loans	$	50,600	39,800
— loan per member	$	39	20

1 — excludes thrift and credit societies.

15.3 In consequence, in the early years of DPVI attention will be focussed upon the consolidation of existing co-operative societies. This will be achieved by encouraging the creation of larger, and increasingly multi-purpose, units and by improving the quality of their management. For these purposes $175,000 has been allocated. These funds will be used to assist in the provision of appropriate equipment and to encourage the employment of properly trained managerial staff.

15.4 The benefits which will arise from the injection of these funds can be considerably enhanced by the integration of co-operative activities. The process of consolidation will need to be supplemented by one of increased co-operation between different segments of the co-operative movement. For example, the resources of credit societies need to be made increasingly available to consumer societies and their members. Similarly the activities of shipping co-operatives could be usefully co-ordinated with those of produce marketing societies.

15.5 The supply of suitably trained managers, accountants and secretaries will be increased and improved by the expansion of the Co-operatives Training School at Lami. The project is estimated to cost $70,000 and is planned to be implemented in 1974.

15.6 Consumer societies are already well established, particularly in the rural areas. Following a period of consolidation in 1970 and 1971 these societies should be able to provide improved services, especially as increased integration with the activities of wholesale co-operatives is achieved. It will however be necessary to direct increased effort to improving the standard of management and the maintenance of records.

15.7 In contrast to most other co-operative activities, credit societies are expected to expand rapidly during DPVI. Indeed between 1968 and 1969 there was a 45 per cent increase in the membership of thrift and credit co-operatives. These societies will play an increasingly important role in the provision of rural credit as well as providing resources for the development of other co-operative activities. Detailed proposals for the establishment of a national co-operative bank and the development of existing thrift and credit societies and regional credit associations are under consideration. The resources of this bank will come principally from share capital subscribed by member societies, revolving funds created by deductions from crop proceeds of individual members and the voluntary savings of private individuals. In addition the bank may seek external financial assistance.

15.8 Improved marketing has been already identified as crucial to agricultural development and hence marketing co-operatives have a vital role. In particular, 'super' primary societies; i.e. those embracing several types of produce, will be encouraged wherever possible. The provision of storage and transport facilities will be essential, both at the point of production and in centres of consumption, to the success of marketing. In this context close co-ordination with the proposed National Marketing Authority will be necessary.

15.9 Other co-operatives such as land-holding and settlement societies and shipping societies are in need of consolidation and improved management. Although some of the existing land-holding and settlement societies have run into considerable difficulties their creation will be encouraged as appropriate. No new shipping societies are likely to be created but the services of the existing one will need to be expanded in line with the demands of members and other users. The development of co-operatives involved in fishing and in tourist activities, such as the production and marketing of handicrafts, is much more problematic. However, as the scope for these activities develops, suitable co-operative societies will be encouraged.

15.10 The Co-operatives Department's planned level and phasing of capital expenditure for DPVI is shown in Table 15.2.

Table 15.2: Capital Expenditure Programme, Co-operatives

($ thousand)

	1971	1972	1973	1974	1975	Total
Lami Education Centre	—	—	—	70.0	—	70.0
Furniture	1.0	1.0	1.0	1.0	1.0	5.0
Financial Grants to Regional Societies	35.0	35.0	35.0	35.0	35.0	175.0
Total	36.0	36.0	36.0	106.0	36.0	250.0

CHAPTER 16

TOURISM

Fiji has benefitted substantially from the accelerated growth in world travel in the last few years. In addition to its natural attractions, it has geographical advantages in that it is located on the main air and shipping routes between North America and Europe on the one hand and Australasia on the other. The number of visitors to Fiji has grown rapidly in the past few years.[1] Table 16.1 shows the pattern of growth during the nine-year period beginning in 1961, classified by country of origin.

Table 16.1 : Visitors, Arrivals and National Composition

(percentage composition, by nationality)

Year	Number of Visitors	Australia	New Zealand	USA	UK	Canada	Pacific Islands	Others	Total
1961	14,722	14.5	19.9	29.4	6.8	2.3	12.8	14.3	100
1962	18,255	14.7	19.9	29.8	11.0	3.0	13.4	8.2	100
1963	24,246	19.7	23.5	24.8	7.6	2.8	13.9	7.7	100
1964	31,364	23.9	25.0	25.0	6.9	2.8	9.5	6.9	100
1965	40,135	22.7	27.8	23.8	7.5	3.2	8.1	6.9	100
1966	44,561	22.5	27.7	22.9	9.0	2.9	8.5	6.5	100
1967	56,021	26.6	26.5	22.8	6.6	3.0	7.9	6.6	100
1968	66,458	32.2	19.9	25.1	5.9	3.4	8.7	4.8	100
1969	85,163	31.6	18.5	24.9	6.6	4.3	6.6	7.5	100

16.2 The average rate of increase in the number of visitors o Fiji during the last decade was of the order of 23 per cent nnually. The number of cruise passengers also grew rapidly luring the same period. In 1961 about 4,000 cruise passengers isited Fiji. By 1969 this figure had risen to about 41,500. The rowth in through passengers was similarly impressive. The umber of through passengers grew from about 69,000 in 1960 almost 150,000 in 1969. This history suggests a growing otential supply of visitors during the coming years. To this nd, every effort will be made through advertisement and pro- otion by the Fiji Visitors Bureau to encourage would-be rough passengers to break their trips in Fiji. Figure 16.1 hows the growth pattern of these three categories of tourist uring recent years.

.3 Australia, the United States of America and New Zea- nd are currently the most important markets for Fiji's tourist dustry. The proportion of total visitors coming from these three untries rose from about 64 per cent in 1961 to 75 per cent 1969.

Visitors are defined as non-resident incoming passengers who leave Fiji on a different vessel or aircraft as well as those who leave on the same aircraft but who leave the airport transit area while passing through.

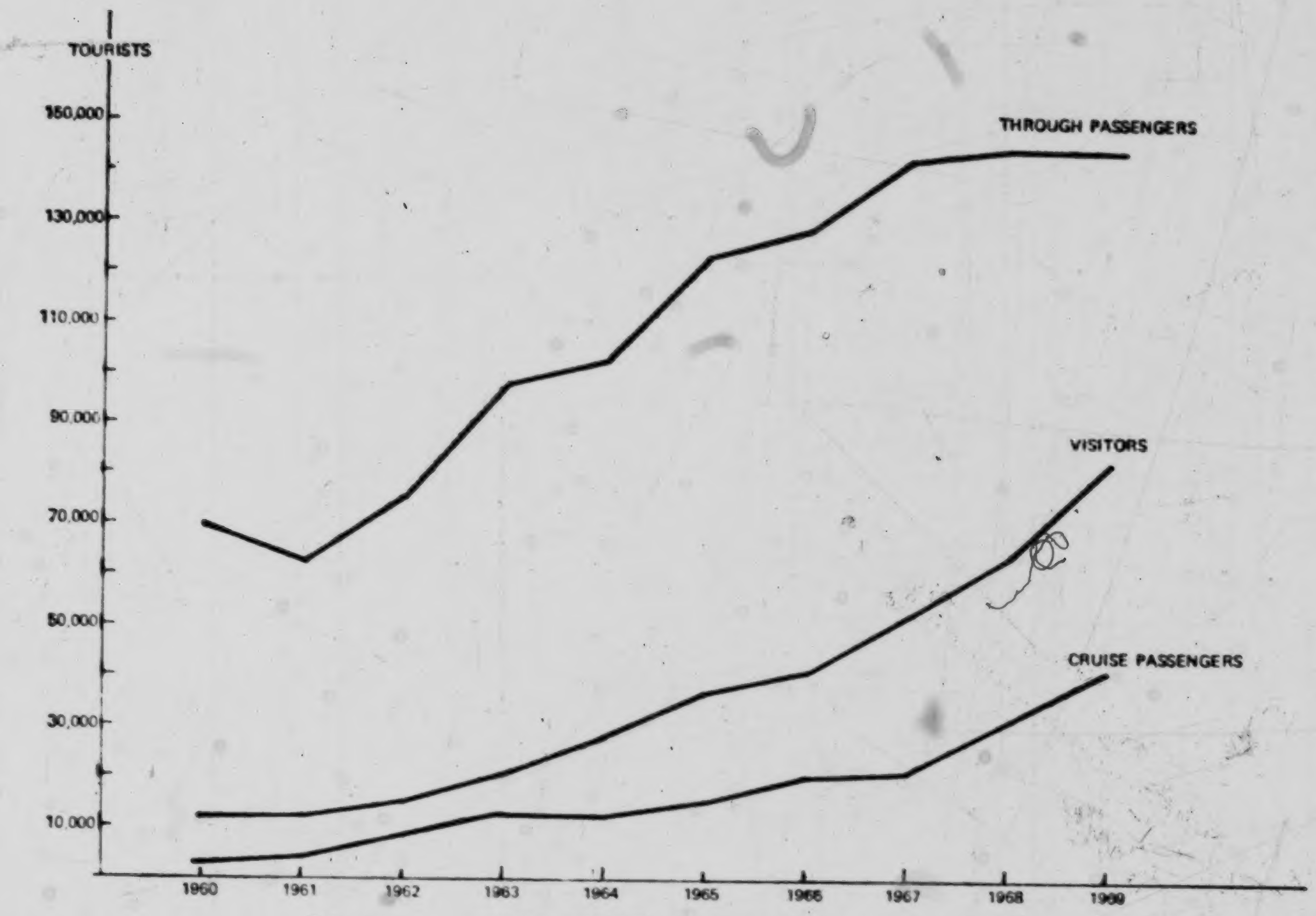

FIG. 16.1 RECENT GROWTH, BY THE CATEGORIES OF TOURIST

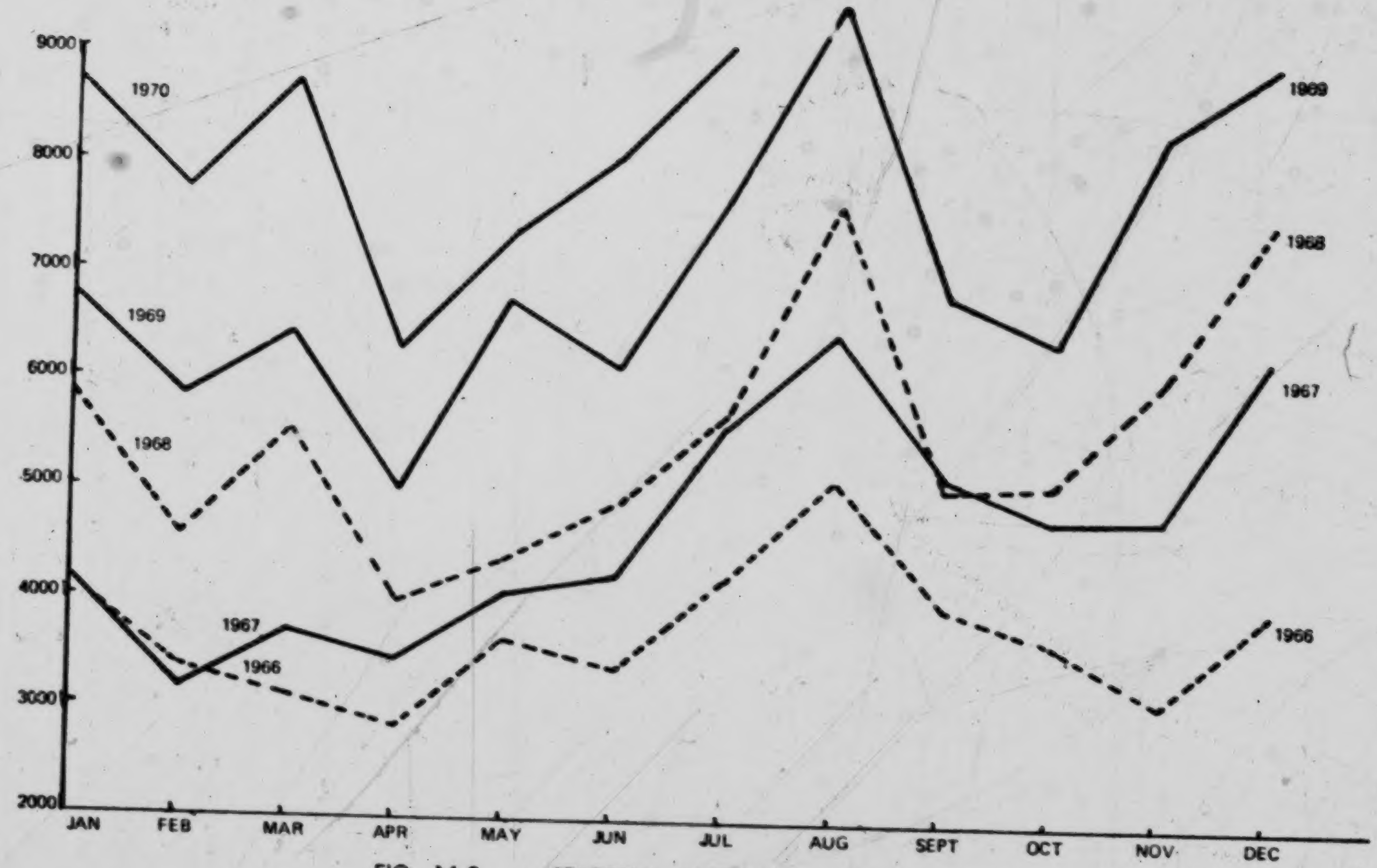

FIG. 16.2 SEASONAL PATTERN OF VISITORS FLOW

16.4 Tourism is particularly sensitive to external factors. Continuing economic growth in those countries which supply the bulk of visitors will have a favourable influence on the future number of visiting tourists to Fiji, just as devaluation and currency restrictions in the main tourist markets have tended to have an immediate impact on the tourist trade. The 11 per cent drop in New Zealand visitors to Fiji in 1968, for instance, appeared to have been directly related to the devaluation of the New Zealand dollar towards the end of 1967. Similarly, the devaluation of Fiji currency with respect to the Australian and American dollars partially explains the significant rise in the number of visitors from Australia and the United States of America in 1968.

16.5 The seasonal nature of the pattern of visitor arrivals is illustrated in Figure 16.2. There are two distinct peaks: December to January and July to August. The slight peak in March coincides with the usual influx of American visitors at this time of the year. The capacity of hotels and other accommodation has tended to be over-taxed during the peak periods. This is particularly true around the Nadi Airport area. During the trough periods occupancy rates fall substantially. Efficiency in the utilisation of Fiji's tourist facilities would be enhanced if the seasonal fluctuations in the flow of visitors could be reduced. To this end, every effort will be made through the Fiji Visitors Bureau and other channels to encourage package tours and other economy type tour arrangements during the trough periods.

16.6 **Hotel Capacity.** Rapid expansion in the capacity of hotel and other accommodation has taken place in recent years, the total number of rooms increasing from about 600 in 1962 to 1,767 in 1969. During the same period the number of beds rose from about 1,100 to 3,725. The aggregate supply of rooms and beds has kept up with total demand. However, the geographic distribution of hotel facilities has been far from optimum. During the peak seasons the demand for rooms has tended to exceed supply in the Nadi, Lautoka and Coral Coast areas. In contrast, excess hotel capacity has consistently existed in Suva, resulting in relatively low average occupancy rates.

16.7 This uneven growth is a matter of concern to Government. Its persistence implies that Fiji's tourist facilities will be inefficiently utilised. Government has the responsibility for ensuring the unhindered growth of the industry. To this end it cannot afford to leave everything to the free play of supply and demand and to the decisions of entrepreneurs. It will play an indirect role, however, fostering better planning and using incentives to influence the decisions of entrepreneurs so that an optimum distribution of hotel facilities consistent with the stated national objectives can be achieved.

16.8 **Employment.** The tourist industry is still a relatively small sector. In 1970 it is expected to contribute about 3.5 per cent of GDP. The number of people employed in hotels and other accommodation facilities at the end of 1969 was about 2,000. The number of employees in other services such as tours, entertainment, handicrafts, taxis, duty-free retailing, which are directly involved in supplying the needs of tourists, may be as high as 2,000. Although presently a small employer because of its relatively small size, the tourist industry is a dynamic sector so that its employment potential is expected to become much more significant during the DPVI period.

16.9 **Gross Receipts from Tourism.** This item grew very rapidly during DPV. In 1965 total spending by tourists was about $7.5 million. It is estimated that this figure will be more than $26 million in 1970. However, the tourist industry currently has a high 'import leakage' which sharply reduces its role as a generator of national income.

16.10 An attempt to evaluate the economic impact on the Fiji economy of the gross tourist spending for the year 1966 has been made. The study suggests that the 'multiplier' of this sector, defined as the amount of national income within the economy generated from a dollar of direct tourist spending, is much lower than the figure of 3.2 previously suggested as appropriate for the South Pacific Region by various organisations. The tourist industry 'multiplier' for Fiji appears to be not much greater than unity.

16.11 Even with such a relatively low multiplier, the impact of this sector is still substantial. Moreover, its impact can be increased by reducing the 'import leakage'. To this end Government will encourage the industry, as far as this is possible, to purchase more locally produced goods, especially food items. It will also encourage farmers and other suppliers to pay increasing attention to improving the quality and reliability of supply of their products. The successful implementation of this policy will raise the tourist multiplier, generate income in the rural areas and generally spread the benefits of this industry more widely.

Broad Objectives of Tourism Development

16.12 The objectives of the tourist programme are to:

(i) increase the number and length of stay of visitors;
(ii) encourage private investment in the provision of accommodation of acceptable standards and other complementary facilities;
(iii) promote Fiji's tourist attractions in the North American, Australian, New Zealand, Japanese and European markets;
(iv) provide opportunities for greater local participation through employment, equity holdings, training and the supply of goods and services;
(v) spread the benefits of tourism to the outlying islands and the rural areas;
(vi) ensure that the above objectives are achieved at the most economical cost to Government and with due regard to the demands on scarce Government resources of the other sectors of the economy;
(vii) ensure that the well-being of the community is not jeopardised through the social changes that rapid tourist development generally entails;
(viii) introduce such legislative and institutional changes as may become necessary for the continued orderly and unhindered development of the industry.

Targets for Growth, 1971-75

16.13 **Hotel and Other Accommodation.** Table 16.2 shows the expected number of visitors during the DPVI period, together with the total number of rooms that will be needed to accommodate these visitors.

Table 16.2 : Visitors Expected and Number of Rooms Required

(number)

	1969	1970	1971	1972	1973	1974	1975
Visitors	85,133	105,500	129,800	157,000	188,000	224,000	264,000
Hotel Rooms	1,462	1,870	2,360	2,910	3,540	4,260	5,000
Rooms in Other Accommodation	305	385	485	590	710	850	1,010

16.14 The average growth rate in the number of visitors during the next five years is expected to be more than 20 per cent per annum. The target total number of rooms should be taken as giving only broad indications of the total room facilities that will be needed. For purposes of arriving at these figures it is assumed that the average length of stay of visitors will not fluctuate widely from those observed during recent years. It is also assumed that the average annual room occupancy will rise gradually to 70 per cent. Promotion of economy and package type visits to Fiji during trough periods and a more rational distribution of hotel development will also be instrumental in raising the overall room occupancy rate. In money terms the required investment in hotel and other accommodation will be substantial. Based on 1970 prices, it is estimated that the additional rooms mentioned will involve a total investment of some $30 to $40 million over the duration of DPVI.

16.15 **Gross Receipts.** Tourism is expected to become a very significant source of foreign exchange during the Plan period. Gross receipts are projected to rise from an estimated $26.7 million in 1970 to $82.5 million in 1975. The critical role that will be played by this sector in ensuring the availability of adequate foreign exchange reserves consistent with the country's development needs is emphasised in Chapter 6.

16.16 **Private Sector Investment.** Table 16.3 shows a breakdown of expected private sector investment for 1970 and 1975. This figure should be taken as providing a rough guide to the level estimated to be consistent with the expected increase in tourist arrivals.

Table 16.3 : Target Private Sector Investments in Tourism

($ million, 1970 prices)

	1970	1975	Annual Growth Rate (%)
Hotels and Other Accommodation	3.7	9.0	19
Transport Facilities	1.8	3.6	15
Other Service Facilities	0.6	1.2	15

16.17 **Employment and Income.** Employment in hotels and other accommodation is expected to be of the order of 7,000 by 1975. Other complementary services in the tourist sector will be employing roughly another 7,000 people by that year. The importance of the tourist sector as an employer will therefore rise considerably. The sector's contribution to Gross Domestic Product is also expected to rise from 3.5 per cent in 1970 to 6.2 per cent in 1975.

Policies and Programmes for Development, 1971-75

16.18 The Government's role in tourist development will be mainly indirect. Government will continue to offer tax incentives and other assistance to encourage the private sector to invest in facilities for tourists. It will also continue to ensure that the infrastructure necessary for the smooth operation of the private sector is provided. Whenever 'bottlenecks' appear Government will help in their solution. It will also play a regulatory role with a view to ensuring that visitor satisfaction is maximised. In the long run, satisfied visitors are the best advertisement for Fiji in the overseas tourist markets.

16.19 **Tax Incentives in the Tourist Industry.** There are two alternative forms of assistance to hotel investors under the Hotel Aids Ordinance. Firstly, a hotel investor can apply for a grant equal to seven per cent of the capital cost of the hotel, excluding land. In addition the capital cost (less subsidy) may be depreciated at an accelerated rate over a period of 15 years. For purposes of accelerated depreciation, the income of another hotel owned by the investor may be deducted from taxable income.

16.20 Alternatively, the hotel business may claim an allowance on capital expenditure. The cost of the land is also excluded in this case. Under the allowance alternative the hotel business may offset 55 per cent of the capital expenditure against taxable income. The unutilised balance after the first year may be carried forward for setting off against income in succeeding years. In addition, ordinary depreciation is allowed on the construction cost of the hotel.

16.21 The Hotels Aids Ordinance provides the Government with certain regulatory powers. The Minister for Communications, Works and Tourism when deciding to approve applications for Government assistance to hotels takes into account such factors as standards, size and the potential demand for hotel facilities in the proposed location of the new hotel.

16.22 The provision of the present Hotel Aids Ordinance will continue into the DPVI period. The Ordinance is to be reviewed and its effectiveness assessed during the Plan period.

16.23 **Physical Planning.** A physical plan for tourist development in Fiji will be prepared during DPVI. It is planned to request assistance from the World Bank through the United Nations Development Programme. The work will include an overall survey of Fiji with a view to identifying the areas and places best suited for tourist development. Recommendations on zoning designed to encourage and ensure orderly development within the identified areas will also be included.

16.24 In drawing up this overall physical plan, special consideration will be given to the need to spread tourism development to outlying areas of Fiji. Very close co-ordination will be maintained with the development of the internal land, sea and air transportation system. An evaluation of present Government concessions and incentives as an instrument for influencing the optimal geographic distribution of tourist facilities will be made.

16.25 It is envisaged that the final plan will include concrete programmes of development for a few areas incorporating assessments of costs and benefits, and proposals for organising joint ventures by land owners and private developers.

16.26 **Government Organisation.** Recently new legislation was introduced creating a Fiji Tourist Commission. The Commission is chaired by the Minister for Communications, Works and Tourism. Government will, through the Commission, play a more active role in policy and planning of the tourist sector. The Commission will also pay increasing attention to tackling areas of dissatisfaction in the industry and to considering regulation of operating standards including hygiene, sanitation, service, etc. The Commission, after appropriate study, may initiate further legislation designed to ensure the orderly development of the industry.

16.27 The Fiji Visitors Bureau is primarily concerned with overseas publicity and promotion. Its internal activities are concerned with planning and implementing programmes designed to increase visitor satisfaction in Fiji. The Ministry of Communications, Works and Tourism administers the Hotel Aids Ordinance and the building of necessary infrastructure such as water supplies, airports, electricity supplies, telecommunications. Because of the rapid growth in tourism, a separate Department of Tourism will be built up within the Ministry during DPVI.

16.28 **Tourist Promotion.** The Fiji Visitors Bureau plans to step up its promotional activities in North America, Japan, Australia and New Zealand during the Plan period. Offices of the Bureau are already established in Australia and New Zealand and plans are being made to open offices in the United States and Japan.

16.29 The Bureau will continue to co-operate with the other governments of the South Pacific in promoting the region in the main tourist markets of the world. This scheme is felt to allow valuable economies in the promotional field for all governments of the region. Visitors will tend to tour more of the islands in the region as the regional sea and air transport system improves.

16.30 The Bureau will continue to receive financial backing from the private sector and Government. Businesses involved in the tourist industry have traditionally contributed voluntarily to the Bureau. Five per cent of business licence revenue raised in Suva and Lautoka is given to the Bureau. Government's contribution is determined by a formula introduced in 1968. Under this formula, its contribution in any year will be related to the number of visitors in the previous year. With the expected rapid growth in the number of visitors, Government's contribution will rise very quickly during DPVI.

16.31 **Duty-Free Trading.** A scheme of allowing a range of consumer durable goods to enter Fiji free of duty was introduced in 1962. The scheme was justified on the grounds that it would provide an attraction for tourists, especially cruise-ship passengers. It is felt that the duty-free scheme has been relatively effective and, therefore, it will be continued through the Plan period. However, its revenue erosion effects will be regularly investigated in order to guide future policy.

16.32 **Infrastructure Developments.** Government places a high priority on spreading the benefits of tourism widely to the outlying areas. To this end, airports at Labasa, Savusavu and Taveuni may be substantially improved. A new runway will also be built on the island of Lakeba during the Plan period.

16.33 The reconstruction of the Suva-Nadi road is expected to begin in 1972. This road will greatly assist tourist development around the south and south-west coasts of Viti Levu.

16.34 **Equity Participation.** Every effort will be made to encourage equity participation by local interests in new tourist ventures. The Fiji Development Bank is already encouraging this process through acquiring shares in various companies with a view to ultimately selling them to the public. The Native Land Trust Board has developed a formula for selling leases of native lands for equity holdings by the landowners in any development. This scheme could go a long way toward providing the necessary incentives for land-owners to make land available for tourist development, thus reducing the present difficulty of acquiring suitable sites.

16.35 **Government Capital Programme.** Table 16.4 shows the size of the Government capital programme for the industry during the DPVI period.

Table 16.4 : Capital Expenditure Programme, Tourism

($ thousand)

	1971	1972	1973	1974	1975	Total
Hotel Aids	10.0	15.0	15.0	15.0	15.0	70.0
Resort Infrastructure Development	160.0	150.0	150.0	150.0	150.0	760.0
Development of Beaches, Car Parks and other Natural Attractions	10.0	12.0	14.0	16.0	18.0	70.0
Total	180.0	177.0	179.0	181.0	183.0	900.0

16.36 **Training.** Every effort will be made to supply the skills needed by this industry. The existence of a skilled labour force will increase efficiency leading to cost savings. Furthermore, with the resulting improvement in services, visitor satisfaction will be enhanced.

16.37 Some hotels have started Government assisted in-service training schemes. However, Government participation in off-the-job training is also necessary. Hence, funds amounting to $100,000 have been allocated for the establishment of a School for Hotel and Catering Services. The building of this school is planned for 1971.

16.38 **Social Implications of Tourist Development.** There is no doubt that the economic impact of tourism will be substantial. In the long run, however, the social impact of tourism may be even more far reaching. The influx into a relatively unsophisticated community of large numbers of people with very different standard and needs gives rise to substantial social interactions and strains. The so-called 'demonstration effect' will influence attitudes, standards, consumption and other behavioral patterns. Some of these changes will, of course, be desirable and may even prove to be valuable for the long run social and economic development of the nation. However, as seen elsewhere, the uncontrolled growth of tourism may have certain undesirable social repercussions. Government stands committed to ensuring that the undesirable aspects of tourism will not be allowed to develop.

CHAPTER 17

GOVERNMENT SERVICES — EDUCATION

The 1966-70 Development Plan provided for a capital expenditure of just over $4 million. Estimated actual expenditure over this period was around $3.2 million. This shortfall was due primarily to the decision not to proceed with the establishment of either 'Middle Schools' or secondary technical schools; but it was partially offset by allocating more funds in secondary school grants than was planned. Despite this under-expenditure, both the primary and secondary school rolls expanded rapidly. Total primary school enrolment in 1970 was about 121,000 compared with 99,138 in 1966 and a DPV target of 119,700 for 1970. Total secondary school enrolment in 1970 was about 16,000 compared with 8,417 in 1966 and a target for 1970 of only 11,305.

17.2 In the field of primary education DPV aimed to reduce the cost of education to parents and to continue to provide schools for all who wanted them. By 1970 substantial progress had been made toward both these objectives. Final figures for 1970 are not yet available, but in 1969 86 per cent of all children aged 6 to 13 were attending primary school compared to 83.5 per cent in 1966. In addition to stimulating an increase of some 22,000 primary school places in the 1966-70 period, substantial progress had been made toward reducing the costs of primary education to parents. This was achieved by Government assuming an increasing responsibility for the recurrent costs of non-Government primary schools. By 1970 Government had assumed 100 per cent of the cost of trained primary teachers' salaries, introduced grants for remission of fees in non-Government primary schools, grants toward the salaries of untrained teachers in primary schools and a greatly increased supply of free text books. Despite these improvements, the rapid increase in the primary school roll has not been matched by a proportionate increase in Fiji's teacher training capacity, with the result that untrained teachers comprise 24 per cent of the total primary teaching force in 1970, compared with 21.5 per cent in 1966.

17.3 In the field of secondary education the main aims were the introduction of Middle Schools, a reduction in the emphasis given to traditional academic courses in other secondary schools, a rapid expansion of Fifth and Sixth Form facilities, and a reorganisation of the salary structure for secondary teachers. The first of these aims was abandoned early in the previous Plan period because it was considered undesirable to make a sharp distinction between so called academic and non-academic courses. However, the plan to introduce a six-year, instead of an eight-year, primary course followed by a four-year lower secondary course with less emphasis on the traditional academic subjects is retained in the proposals for the 1971-75 period. No progress was made towards reorganising the salary structure for secondary teachers, but by 1970 the number of Fifth and Sixth Form places had exceeded the target of 3,105 by 52 per cent. In addition, the Government had taken on an increasing responsibility for the recurrent costs of non-Government aided secondary schools, by increasing the salary subsidy from 50 per cent to 60 per cent, raising the level of expenditure for the provision of free places, and doubling the value of other recurrent grants to aided schools.

17.4 In the field of technical and vocational education the main aim was to increase the supply of trained manpower, primarily through the expansion of the Derrick Technical Institute (DTI) to provide additional facilities for apprentice and technician training. As a result the DTI's rolls increased from 136 to 263 full-time students and from 1,336 to 2,533 part-time students between 1966 and 1969. Plans for a marine training school were not implemented because of financial constraints, while those for the establishment of three secondary technical schools were not proceeded with because of the undesirability of making too sharp a distinction between so-called 'academic' and 'practical' education.

17.5 The rapid growth of the primary school roll and delays in the expansion of Nasinu Training College have now resulted in a considerable shortfall in the supply of trained primary teachers. The rectification of this is of the highest priority in the 1971-75 Plan period. The establishment of the University of the South Pacific and of its degree and diploma courses for secondary school teachers was an important development during the previous Plan period, and it can be expected to become the major source of new secondary school teachers in the future.

Long-Term Aims

17.6 The development of any education system is a very long-term process. It is therefore essential to relate the policies and programmes planned for the 1971-75 period to a longer-term view of the system's evolution. The eight main aims which it is hoped to achieve by the middle 1980s are:

(i) provision to enable every child to have at least 10 years of education up to Form Four (the first six of them compulsory), with a further two years of education for those whose Form Four performance indicates that they are able to cope at the higher level;

(ii) a marked improvement in the quality of the intake into teachers' colleges and in the quality of the teacher education programme generally;

(iii) the staffing of all primary schools wholly by trained teachers and the achievement of an acceptable pupil: teacher ratio in all primary and secondary schools;

(iv) a marked improvement in the quality of primary and secondary education, partly by (ii) and (iii) above, partly by an increase in the supply to schools of books, teaching aids and equipment for the teaching of science and craft, and partly by a continuing reform of curricula and examinations;

(v) the institution of fee-free education, first for Classes One to Six and then for Forms One to Four and a marked reduction in fees at Fifth and Sixth Form level;

(vi) a marked improvement in the education of Fijians, in order to redress the present imbalance between the educational attainment of Fijians and that of other races;

(vii) the further orientation of technical and vocational education toward the manpower requirements of the economy;

(viii) the eventual assumption by Government of full financial responsibility for all schools which are willing to hand over these responsibilities.

17.7 To achieve these aims and in particular the first of them, the rate of population growth must be kept down. Present projections indicate that, even allowing for 100 per cent attendance of all 6-11 year olds from about 1976-77 onwards, the total Class One to Six roll (which rose by 32,500 between 1959 and 1969) will increase by only a further net 5,000-5,500 between 1969 and 1984. This is shown in Table 17.1, in which the size of the 6-11 age-group is based on the mean between the 'high' and 'low' population projections shown in Table 4.1.

Table 1[illegible].1 : Class One to Six Roll, 1959-84

Year	Size of 6-11 age-group	Composition of Class 1-6 Roll				Quinquennial Increase
		Under 6	Age 6-11	Over 11	Total	
1959	66,891	865	51,641	8,812	61,318	
1964	79,963	643	63,792	8,548	72,983	11,665
1969	96,276	2,435	83,231	8,205	93,871	20,888
1974	96,660	4,400	90,380	6,500	101,280	7,409
1979	89,900	6,500	85,800	3,000	95,300	5,980
1984	96,140	9,000	89,140	1,000	99,140	3,840

Notes : 1. Data is adjusted to May.

2. With an increasing number of children starting school at the age of five, this table cannot show '100 per cent attendance' of the 6-11 age-group. In this table the estimates for 1979 assume 100 per cent attendance of the 6-11 age-group, 95.4 per cent of whom are expected to be in primary school and 4.6 per cent in secondary school.

17.8 At the Form One to Four level the problem will be very much greater, as the aim here is to persuade every child to stay at school for 10 years; at present the Form Four roll represents only about 40 per cent of the Class One roll of 10 years earlier. Table 17.2 shows what would be involved in providing for all Form One children going on to Form Two by 1979 (compared with 90.4 per cent in 1969) and for all Form Two children going on to Form Three by 1982 (compared with 53.1 per cent in 1969). This table clearly shows the very rapid expansion at the secondary level planned for the 1971-75 period.

Table 17.2 : Form One to Four Roll, 1959-84

Year	Form 1-2 Roll	Form 3-4 Roll	Total Form 1-4	Quinquennial Increase
1959	11,124	3,355	14,479	
1964	15,866	5,487	21,353	6,874
1969	22,283	10,228	32,511	11,158
1974	31,800	16,500	48,300	15,789
1979	31,910	23,220	55,130	6,830
1984	31,380	30,720	62,100	6,970

17.9 The corresponding figures for the proposed development of Form Five and Six facilities are shown in Table 17.3. The Form Five roll in this table is based on the assumption that the percentage of Form Four children going on to Form Five will decline from about 65 per cent in 1969 to about 40 per cent by 1980. This decline is not unreasonable when it is remembered that the estimated Form Four roll of the early 1980s assumes that there will be almost no wastage in the 10-year course from Class One to Form Four. But at that time a larger proportion than shown in the table may in fact wish to go on to Form Five.

Table 17.3: Form Five and Six Roll, 1959-84

Year	Form 5	Form 6	Total	Quinquennial Increase
1959	1,081	81	1,162	
1964	1,365	173	1,538	376
1969	2,892	678	3,570	2,032
1974	4,400	1,090	5,490	1,920
1979	5,500	1,610	7,110	1,620
1984	6,100	1,810	7,910	800

17.10 The achievement of the second, third and fourth long-term aims, an improvement in the quality of education, will be less spectacular than the others but much more vital. The decline in quality which has resulted from the very heavy roll increases of the 1960s not being matched by a corresponding increase in the number and quality of teachers cannot be corrected overnight. Although DPVI will concentrate largely on teacher education and curriculum reform, special efforts to rectify the imbalance between quality and quantity will need to be continued thereafter. Indeed, results will probably not become visible until the late 1970s — partly because of the long-term nature of remedial measures, and partly because the physical expansion of the education system will be less then than in the 1971-75 period and very much less than it was in the 1966-70 period.

17.11 New curricula and proposed improvements in the quality of education will necessitate a new examination structure. This will be the responsibility of the proposed Fiji Examinations Board. The sort of long-term structure that might eventually emerge could be as follows:

(i) the abolition in its present form of the Intermediate Examination;

(ii) the abolition of the present Secondary Schools Entrance Examination and its replacement by a 'streaming' test to ensure that after completing Form Two all children can be adequately guided into either the 'terminal' or the 'on-going' Form Three and Four course;

(iii) the retention of the present Fiji Junior Certificate Examination (though in a different form) as

(a) a School Leaving Certificate for the 60 per cent of Form Four children whom it is assumed will leave school for good after 10 years of education, and

(b) a means of determining the 40 per cent whom it is assumed will have the ability to go on to Forms Five and Six;

(iv) the abolition of the present School Certificate and University Entrance examinations and their replacement by one examination in the Sixth Form, taken two years after Fiji Junior.

17.12 The achievement of the fifth long-term aim will depend wholly on the availability of recurrent budget funds. Tuition fees at the Class One to Six level will be abolished as soon as possible, but this may not prove possible within the Plan period. If their abolition cannot be achieved by 1975, it is hoped that provision for the remission of fees will, by then, be running at such a high level that no child need be denied a primary education because of inability to pay fees. Once tuition fees have been abolished it will still be necessary for school managements to raise funds, as now, to meet the cost of such items as furniture, building maintenance and their share of the capital cost of new buildings. If population growth can be kept under control, and if the teacher-education programme goes ahead as planned, the number of school-age children in school by 1975 will be so close to 100 per cent that compulsory education for Classes One to Six could probably be introduced within a year or two of the introduction of fee-free primary education.

17.13 The achievement of the sixth long-term aim, to reduce the educational gap between Fijians and other races, will depend among other things, on the success of measures designed to increase the Ministry's mobility in outlying areas, to recruit and retain the services of better-qualified Fijian teachers (and/or to employ an increasing number of non-Fijian teachers in predominantly Fijian schools), to provide more and better equipment and textbooks in Fijian schools, and to reduce (by amalgamations or by the provision of transport facilities) the need for multiple-class teaching, particularly at the upper primary level. But these measures are unlikely to be fully effective until Fijian parents are imbued with the same determination that their children should 'get on' as is displayed by parents of other races. A campaign will therefore be launched to impress upon them the need to take a more active and knowledgeable part in the education of their children.

17.14 The achievement of the seventh aim, to further orient technical and vocational education to meet manpower requirements, will require a continuous improvement in manpower forecasting. It will also involve the decentralisation of apprentice and equivalent level commercial training, and the development of the Derrick Technical Institute as a tertiary institution for middle-level manpower education and training.

The DPVI Capital Programme

17.15 The policies and programmes to be implemented in the 1971-75 period are largely determined by these long-term aims. The volume of capital expenditure in the education sector is planned to total $7,968,000 during the five-year period. Table

17.4 summarises the allocation of this expenditure. A capital expenditure of $1,745,000 is planned for the expansion of teacher training capacity during the Plan period. This category of expenditure has the highest priority since it is central to improving the quality of education. The planned capital expenditure of $3,776,000 on secondary education, compared with $952,000 on primary education, shows the heavy emphasis to be given to the development of Form One to Four facilities to eventually enable all children to have at least ten years of education. The following paragraphs present in more detail the programmes and policies to be implemented in the Plan period.

Table 17.4: Capital Expenditure Programme, Education

($ thousand)

	1971	1972	1973	1974	1975	Total
Primary Education	212.0	125.0	125.0	275.0	215.0	952.0
Secondary Education	495.0	700.0	534.0	647.0	1,400.0	3,776.0
Vocational Training	120.0	130.0	445.0	390.0	140.0	1,225.0
Teacher Training	375.0	80.0	540.0	750.0	—	1,745.0
Miscellaneous	22.0	42.0	53.0	72.0	81.0	270.0
Total	1,224.0	1,077.0	1,697.0	2,134.0	1,836.0	7,968.0

Kindergartens

17.16 The provision of pre-school facilities is highly desirable, especially in urban areas where kindergartens can greatly assist in the building up of a genuinely multi-racial primary school system. But the provision of school facilities for children of school age is of greater immediate importance (in 1969, for instance, there were some 17,000 children aged 6-13 who were not in school), and for this reason Government does not intend to enter directly into the kindergarten field during the Plan period. At the same time, however, Government intends to:

(i) continue to employ qualified kindergarten supervisors whose function is to guide existing and future kindergartens along the right lines, and to run short courses for kindergarten teachers and their assistants (two such supervisors are currently at post); and

(ii) award one or two scholarships each year for the training of kindergarten teachers, provided adequate arrangements are made for their employment on completion of their training.

Primary Education

17.17 The main aims during the Plan period are first, to improve the quality of primary education, second to shift the financial burden from parents to the community as a whole, and third to continue a modest expansion of the primary school roll to increase the proportion of children aged 6-11 who are in school from 89 per cent in 1969 to 97.5 per cent by 1975.

17.18 The first of these objectives, an improvement in the quality of education, will be achieved in two main ways — the construction and introduction of a new curriculum, and the improvement and expansion of the teacher education programme. Work on the new Class One to Six curricula is being carried out by the department's Curriculum Development Unit which will maintain very close liaison with the University of the South Pacific's secondary Curriculum Development Unit. It is hoped that basic work on the new curricula for the full 10-year course from Class One to Form Four will be completed by 1975; but the process of revision and revitalisation will necessarily be a continuing one. The supply of free texts to support the new curricula will be progressively increased throughout the Plan period, as will the provision of general reading matter and teaching equipment. The results of expanding the primary teacher education programme will not be fully realised until the proposed Lautoka Teachers' College is in operation, and it will therefore not be possible to improve the present pupil-teacher ratio in Classes One to Six until after 1975. However, the associated in-service training programme during DPVI will be designed primarily to re-train existing teachers on the new syllabuses being produced by the Curriculum Development Unit.

17.19 The second objective of reducing parental costs of education, particularly in non-Government schools, is planned to be achieved in a number of ways. These will involve substantial building grants for classrooms and hostels, increased grants toward the salaries of those untrained (licensed) teachers who have passed the Fiji Junior examination, a rapid increase in the supply of free texts and a radical increase in the volume of assistance for the remission of fees in primary schools. It is hoped that as a result of these measures school managements will be able to reduce their fees substantially. It is also hoped that the wastage between Classes One and Six will fall from 11.7 per cent in 1969 to 5.3 per cent in 1970, as a direct result of reduced parental costs of education.

17.20 The third objective of providing sufficient places for 97.5 per cent of the 6-11 age group to be in school by 1975, is to be achieved mainly through the expansion of places in non-Government primary schools. This will involve an increase in the total Class One to Six roll from an estimated 97,000 in 1970 to 101,000 in 1975. Table 17.5 shows in detail the estimated evolution of the Class One to Six and Form One and Two rolls.

17.21 The planned allocation and phasing of capital expenditure on primary education is shown in Table 17.6. The allocation of $550,000 in building grants is to be decided by the Department of Education in the light of requests from District and Divisional Development Committees. It is intended that an increasing proportion of these funds will be utilised for the reconstruction, expansion and integration of existing schools, and to a lesser extent for the creation of new schools. The finance for primary school building grants has in the past been from funds provided under Britain's Colonial Development and Welfare scheme. A condition of this finance was that the maximum grant to any one school was to be either 50 per cent of total construction costs or, in the case of a 'standard plan' school, 100 per cent of the cost of materials. These conditions may be varied during the Plan period.

Table 17.5 : Primary School Enrolment, 1963-75

(number)

Year	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Total Classes 1-6	Wastage Classes 1-6 (%)	Form 1	Form 2	Total Forms 1 and 2	Total Class 1 to Form 2	Wastage Class 1 to Form 2 (%)
1963	14,109	12,485	11,738	11,224	10,299	9,917	69,772		7,962	6,853	14,815	84,587	
1964	14,843	13,363	12,459	11,434	10,788	10,096	72,983		8,544	7,322	15,866	88,849	
1965	16,293	13,960	13,259	12,133	11,305	10,588	77,538		8,911	7,804	16,715	94,253	
1966	16,504	15,298	14,014	12,801	11,786	10,815	81,218		9,902	8,018	17,920	99,138	
1967	17,010	15,870	15,211	13,539	12,594	11,636	85,860		10,391	8,720	19,111	104,971	
1968	18,024	16,454	15,690	14,731	13,295	12,124	90,318	14.1	11,224	9,370	20,594	110,912	
1969	17,327	17,488	16,434	15,250	14,271	13,101	93,871	11.7	12,136	10,147	22,283	116,154	
1970	17,900	16,900	17,400	15,900	15,000	13,900	97,000	13.5	13,100	11,100	24,200	121,200	21.3
1971	17,400	17,500	16,800	17,100	15,700	14,800	99,300	10.5	13,900	12,300	26,200	125,500	17.1
1972	17,200	17,100	17,400	16,700	16,900	15,500	100,800	8.9	14,800	13,400	28,200	129,000	17.7
1973	17,200	17,000	17,000	17,300	16,600	16,700	101,800	7.3	15,500	14,300	29,800	131,600	13.4
1974	16,900	17,000	16,900	16,900	17,200	16,400	101,300	5.4	16,700	15,100	31,800	133,100	11.2
1975	16,800	16,700	16,900	16,800	16,800	17,000	101,000	5.3	16,400	16,400	32,800	133,800	8.9

Table 17.6 : Capital Expenditure Programme, Primary Schools

($ thousand)

	1971	1972	1973	1974	1975	Total
Primary School Building Grants	125.0	105.0	105.0	105.0	110.0	550.0
Suva Primary School	—	—	—	140.0	—	140.0
Veiuto Primary School	80.0	—	—	—	—	80.0
Demonstration School for Lautoka Teachers College	—	—	—	—	75.0	75.0
Improvements to 18 other Primary Schools	7.0	20.0	20.0	30.0	30.0	107.0
Total	212.0	125.0	125.0	275.0	215.0	952.0

17.22 The allocation of $140,000 for Suva Primary School is for the construction of a new two-stream Class One to Eight school to replace the existing temporary accommodation at Samabula. The $80,000 for Veiuto Primary School is for the construction of an eight classroom block to provide accommodation for Classes Five and Six from Suva Grammar School, thus enabling the latter to develop into a four-stream secondary school. The $75,000 for a Demonstration Primary School at Lautoka is necessary to provide multiple-class teaching practice facilities for the new teachers' training college.

17.23 It is not intended during the Plan period either to hand over any existing Government primary school to a local management committee, or to take over any existing non-Government primary school. The aim will be to assist all non-Government primary schools to improve both their physical facilities, and the quality of the education they offer. With only a comparatively small number of Junior Secondary schools likely to be in full operation by 1975, the great majority of primary schools will still be offering an eight-year (Class One to Eight) course throughout the Plan period; but the Form One and Two part of the new Form One to Four syllabus now under construction will be operative in as many Classes Seven and Eight as possible by that time.

Secondary Education

17.24 The main aims in secondary education during the Plan period are first, the introduction of a new curriculum in Forms One to Four which will embrace a much wider range of courses than offered by a traditional academic education. Second, the eventual creation of a network of Junior Secondary schools which will consist of Forms One to Four. Third, the eventual absorption of primary Classes Seven and Eight into secondary schools as Forms One and Two. Fourth, the provision of more fifth and sixth form places by creating several Form Five and Six colleges and by adding sixth forms onto several existing secondary schools. The eventual effect of these changes will mean that all children leave primary school from Class Six. They will then enter either a Forms One to Four Junior Secondary School, or a Forms One to Six secondary school. In both cases the revised Form One to Four curriculum will be taught. Fifth and sixth form facilities for Junior Secondary graduates will be provided in Form Five and Six colleges.

17.25 Nine Junior Secondary schools are already operating (Richmond, Ratu Finau, Adi Maopa, Koro, Vatuvonu, Labasa Muslim, Bulileka, Dreketi and Bua), and a further eight are due to open in 1971. These schools, and a small number of others which are expected to start operating in the next few years will initially start at Form Three and will work downwards to Form One as and when teachers and facilities become available but by 1975 it is expected that all of them will be providing the full four-year Form One to Four course.

17.26 With the exception of the demonstration school to be used by the University of the South Pacific for teaching practice and curriculum development purposes, all these schools will be non-Government but heavily subsidised by Government. Standard plans, with adequate provision for craft teaching, are being prepared for three main types (small, medium, large) and it is hoped that building grants will be available up to 100 per cent of the cost of materials and transport, and that generous initial equipment grants (in kind rather than in cash) will also be available. Recurrent assistance will take the form of a reasonably generous equipment grant, the provision of 'free' Government teachers for Forms One and Two (there is now no salary contribution in Classes Seven and Eight), and a subsidy towards the salaries of Forms Three and Four teachers rising from 60 per cent in 1970 to 100 per cent by 1975.

17.27 When fully established, each Junior Secondary school will provide a common Form One to Two course for all pupils, and at least two (preferably three) alternative courses at the Form Three to Four level. The content of these 'alternative' courses will vary according to the location of each school and the needs of its pupils. To function satisfactorily each 'stream' will have to be of an economic size. Allowing for substantial wastage at the end of the Form Two year for some years to come, this means that the annual Form One intake into each school should be about 100 and certainly not less than about 80. Few Junior Secondary schools in outlying areas will be able to attract a Form One intake of 80-100 unless boarding facilities are provided; and it is proposed to make $100,000 available for such purposes during the Plan period, especially for cooking and toilet facilities. In cases where a satisfactory road system exists (or is developed), or where short journeys by launch are involved, consideration will be given to subsidising transport costs instead of hostel costs.

17.28 Proposals for training the necessary teachers are outlined in paragraphs 17.38 to 17.48; but well qualified teachers will not be willing to serve in outlying Junior Secondary schools unless satisfactory quarters are available for them. Subject to funds being available, it is hoped to be able to make grants towards the construction of teachers' quarters.

17.29 In addition to the nine Junior Secondary schools which started operating in 1970 there are 29 aided and 17 unaided secondary schools. From 1971 it is hoped to grant-aid as many of the 17 unaided schools as meet the physical and academic requirements for recurrent aid, and to aid the remainder during 1972-75 when they fulfil those requirements. In addition, it is hoped that funds will be available to increase the amount of aid so that by 1975 the full approved salary bill of each aided school will be met by Government. Building grants will be available on an increasing scale and will be awarded mainly for:

- (i) the improvement and development of Fifth and Sixth Form facilities;
- (ii) the improvement and development of craft-teaching facilities throughout the school;
- (iii) the provision of facilities for Forms One and Two;
- (iv) the extension of existing facilities in those cases where extension is a more sensible solution than the establishment of a new school, provided that the optimum size of the school is not thereby exceeded; and
- (v) the building or improvement of teachers quarters, especially in areas where suitable accommodation at a reasonable rental is not available.

17.30 The growth of Junior Secondary schools, together with the growing demand for courses up to and beyond School Certificate, will involve the provision of Form Five and Six facilities additional to those available in (or planned for) existing Form Three to Six schools. The first Form Five to Six colleges will be at Labasa Secondary School, which will begin to shed its Form Three in 1971 (and where a hostel will be essential), and at Natabua High School which will probably do likewise before 1975. The new Nasinu Secondary School, with substantial boarding facilities, will be the first purpose-built Form Five and Six college. These policies and programmes for secondary education will involve substantial capital expenditure. This is shown in Table 17.7. The associated increases in the secondary school rolls are estimated in Table 17.8.

Table 17.7: Capital Expenditure Programme, Secondary Education

($ thousand)

	1971	1972	1973	1974	1975	Total
Building Grants	310.0	320.0	330.0	350.0	500.0	1,810.0
Hostel Grants	10.0	15.0	20.0	25.0	30.0	100.0
Education Equipment [1]	5.0	5.0	5.0	5.0	5.0	25.0
Science and Technical Equipment	30.0	30.0	45.0	50.0	55.0	210.0
Basic Science Equipment for Forms 1 and 2	20.0	20.0	12.0	—	—	52.0
Demonstration Junior Secondary School	—	200.0	—	—	—	200.0
Nasinu Secondary School	—	—	—	150.0	550.0	700.0
Adi Cakobau School – Rebuilding	110.0	110.0	122.0	67.0	—	409.0
Labasa Secondary School 5th, 6th Form Facilities	—	—	—	—	30.0	30.0
Hostel	—	—	—	—	100.0	100.0
Levuka Public School	—	—	—	—	50.0	50.0
Natabua High School	—	—	—	—	30.0	30.0
Suva Grammar School	—	—	—	—	50.0	50.0
Queen Victoria School	10.0	—	—	—	—	10.0
Total	495.0	700.0	534.0	647.0	1,400.0	3,776.0

[1] — About 30 per cent of this expenditure is for primary education.

Table 17.8 : Estimate of Form Three to Six Rolls, 1970-75
(number)

Year	Form 3	Form 4	Form 5	Form 6	Tota
1967	3957	3884	1779	365	99
1968	4710	4451	2363	471	119
1969	4980	5245	2892	678	1379
1970	5610	5640	3840	880	1597
1971	6220	5900	4120	950	171
1972	7010	6390	4270	1010	186
1973	7770	7290	4300	1050	2041
1974	8450	8050	4400	1090	219
1975	8910	8520	4650	1220	233

Technical and Vocational Education

17.31 At the secondary school level the aim is to mak craft-teaching facilities available in every secondary school. I is therefore planned to :

(i) provide appropriate craft-teaching facilities in a Junior Secondary schools;
(ii) expand and develop similar facilities in existing non Government secondary schools; and
(iii) provide or extend similar facilities at the fifth an sixth form level at Suva Grammar School (which wil absorb the full-time secondary technical course now housed at the Derrick Technical Institute), Labas Secondary School, Natabua High School, Queen Vic toria School and the proposed new Nasinu Secondar School,

17.32 The economy of Fiji is based mainly on agricultur and related industries. It is therefore important to creat within the school system a sound and progressive attitude to wards agriculture and its place in the economy, the communit and the nation. It is intended to continue with curriculu revision and development so that :

(i) all children in primary schools may be introduced t the fundamentals of their biological, economic an sociological environment;
(ii) in secondary schools rural science may be introduce as an optional examination subject, on an equal footin with other academic subjects.

To do this teachers must be properly trained and qualified, an it is proposed to include rural studies as a compulsory subjec in primary teachers' colleges with specialist lecturers bein appointed to teach it; and to train specialist teachers of agri cultural subjects for service in vocational and rural secondary schools.

17.33 Two new vocational schools are proposed and in creased capital and recurrent grants will be provided for this field of education which will also be linked to the Rural Youth Programme and the training of farmers and their wives. These schools will be developed on the Navuso pattern including the possible establishment of student farmer schemes. The advisory

Committee on Agricultural Education will continue to advise and co-ordinate the activities of various agencies and Ministries in the field of agricultural education.

17.34 At the post-secondary level specialist facilities will also be required outside Suva for:

(i) apprentice training;
(ii) secretarial and clerical training;
(iii) cottage industry training;
(iv) trade testing; and
(v) adult education.

Rather than attach such facilities to Government secondary schools (where the rolls are likely to be at bursting point, and where there will be a natural tendency to give priority to the needs of full-time students), it is planned to provide them in a small number of separate 'centres of technical education' which could eventually develop into local technical institutes. The first such institute is planned to be built in the Western Division in 1973 at a capital cost of $160,000.

17.35 Developments at the Derrick Technical Institute (DTI) during the Plan period will be aimed at reorganising existing facilities to meet changing requirements, while at the same time providing for natural growth and for the opening up of new areas of study. The third stage of the DTI is planned to be constructed in 1973 and 1974. It seems likely that the main requirements will be for five new workshops (concrete trades, building projects, wood-machining, welding and fabrication, and fitting and machining); additional lecture rooms for such new areas of study as co-operative training, work study, supervision and management, and marine engineering; extensions to the library; communal facilities for students and staff, and additional laboratory facilities and project areas for technician courses in telecommunications, plant maintenance and installation, production engineering, construction, laboratory techniques, and architecture and surveying.

Table 17.9: Capital Expenditure Programme, Vocational and Further Education
thousand)

	1971	1972	1973	1974	1975	Total
Derrick Technical Institute — Phase III	—	—	250.0	250.0	—	500.0
School of Hotel and Catering Services	100.0	—	—	—	—	100.0
School of Maritime Studies	—	—	—	100.0	100.0	200.0
tu Kadavulevu School						
— main school block	—	110.0	—	—	—	110.0
— replacement of dormitories — farm buildings, etc	—	—	15.0	20.0	20.0	55.0
— self building scheme	20.0	20.0	20.0	20.0	20.0	100.0
Centre of Technical Education	—	—	160.0	—	—	160.0
Total	120.0	130.0	445.0	390.0	140.0	1,225.0

17.36 It is also planned to develop on separate sites, initially in temporary accommodation, a School of Hotel and Catering Services in 1971 and a School of Maritime Studies in 1972.

Permanent accommodation for the latter is planned to be provided in 1974 and 1975. The relationship of these and other projects to the manpower requirements of the economy is discussed in paragraphs 4.21 to 4.43. The planned level of capital expenditure in the field of vocational and further education is shown in Table 17.9.

University of the South Pacific

17.37 The University of the South Pacific (USP) will fulfil a vital role during the Plan period and beyond. Its planned rate of expansion will enable an increasing number of students to benefit from a university education which is related to the environment and needs of the South Pacific.[1] In addition to providing an important source of high-level manpower the USP is likely to stimulate the development of the region through the creation of a network for the dissemination of ideas and through the provision of an institutional base for research and co-ordination.

Teacher Education

17.38 Teacher education is necessarily a long-term process, and although its expansion and improvement will be accorded the highest priority in the Plan period the results will not become evident until later in the 1970s. There are two main aspects of the problem — quantity and quality. The number of additional teachers required by the early 1980s will be about 440 a year; but if the quality of education is to be improved there is a need for higher academic and professional qualifications among teachers. This in turn means not only an insistence on higher academic qualifications for admission to pre-service courses, and the provision of longer pre-service courses, but also the implementation of a massive in-service training scheme to ensure that existing teachers are capable of coping with new syllabuses and new teaching techniques.

17.39 The most recent estimates of demands for primary teachers indicate that by the early 1980s (by which time all children of primary school age will be in school, the pupil-teacher ratio will be down to 30:1, and all untrained teachers will have been replaced by trained teachers) the demand for primary teachers will level out at about 240 a year. The long-term aim is to provide two training courses for non-graduate teachers; a three-year course for School Certificate holders and a two-year course for University Entrance holders. Provided equal numbers can be encouraged to enter these courses there is a need for a teacher training capacity of 600. This capacity will be provided during the Plan period by the re-construction of Nasinu Training College (NTC) which is due to be completed in 1972, with a capacity of 300, and the construction of a new training college at Lautoka in 1973 and 1974 with a capacity of 360, of which 60 places are intended for in-service training. In the meantime, however, it will be necessary to continue to provide somewhat shorter courses, with lower admission standards, until the present teacher shortage has been overcome.

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[1] Detailed proposals for the USP are contained in its First Development Plan.

17.40 Primary schools receive a grant of $240 a year (compared with $30 in 1968-69) for each of the 700 untrained ('licensed') teachers currently employed. To encourage the employment of better-qualified licensed teachers it is proposed to increase the grant to $360 for those with the Fiji Junior Certificate and it is expected that by 1974 a large proportion of licensed teachers will possess this qualification. If, as is proposed, the Lautoka College can devote much of its capacity in 1975 and 1976 to intensive one-year courses for existing untrained teachers, it is probable that this will solve the licensed teacher problem.

17.41 Teachers for Forms One to Four will for the most part be trained via the University of the South Pacific's diploma course. The present course is a three-year post-School Certificate course but, as in the case of primary teacher training, it is likely to develop fairly rapidly (for Fiji students, at least) into a two-year post-University Entrance course. Assuming that the Fiji Education Commission's estimate of 180 lower secondary teachers required each year by the middle 1980s is correct, and assuming that 60 of these will follow a three-year post-School Certificate course (total roll 180) and the remaining 120 a two-year post-University Entrance course (total roll 240), the total capacity required for Fiji students alone will be at least 420.

17.42 It is not yet known how far the USP's capacity is likely to expand. However, the total output from USP courses by the beginning of the 1975 school year could be around 265; and to this number can be added about 100 existing Class Seven and Eight teachers, whom it is hoped will have been 'converted' to the Form One to Four syllabus by 1975 at the conversion courses mentioned in paragraph 17.41, and about 40 volunteers (mainly Peace Corps, and mainly in the Maths/Science field). Of this total of about 400, some 280 will be required for the Junior Secondary schools likely to be in full operation by 1975, while the remaining 120 will be required for existing secondary schools (partly for expansion and/or staff-strengthening purposes, and partly for the Forms One and Two which will be added to existing Form Three to Five and Form Three to Six schools during the Plan period.

17.43 The one-year conversion course which began at Corpus Christi Training College in 1970, and which caters for serving teachers who have passed School Certificate and who have undergone either the three-year course at Corpus Christi Training College or the two-year course at NTC, will continue throughout the Plan period; and when the rebuilding of NTC is complete it is proposed to institute there a similar (but two-year) conversion course for Class Seven and Eight teachers who have completed the one-year post-School Certificate course at Nasinu Training College.

17.44 A number of potential graduate teachers are still in training at overseas universities, and it is possible that a number of 'uncommitted' students overseas might also be persuaded to enter the teaching service; but during the Plan period the main source of Fiji's graduate teachers for Forms Five and Six will be the four-year degree course at the USP. An annual output of 30-35 a year would probably prove sufficient to meet the needs of fifth and sixth forms, where graduates are essential, but it is highly desirable to have a strong leavening of graduate teachers in lower secondary forms. Although the primary function of the graduate teachers produced by the USP will be to teach at the fifth and sixth form level, they will also be qualified to teach in lower secondary forms and it is likely that most of them will in fact begin their teaching careers in those forms. At the same time, it is hoped that provision will be made to enable USP trained Form One to Four diploma teachers, after several years of teaching experience, to return to the USP and undergo a special course leading to the award of a degree.

17.45 To increase the output of junior secondary teachers, the USP intends to introduce in 1971 a course leading to a Diploma in Education by external study. This Diploma will be equal in status to that awarded to teachers completing the existing three-year full-time Diploma course. It will, however, consist of at least four years of part-time study followed by one year of full-time residential study at the USP. It is at present intended that candidates who qualify for admission to Preliminary I, or who are practising teachers with at least three years teaching service, shall be eligible for provisional admission to this proposed course.

17.46 The need for in-service training facilities, already very great, will increase enormously as the work of the two Curriculum Development Units progresses. Apart from three residential 14-week courses a year at the English Teaching Unit (catering for 90 teachers a year in all), the bulk of existing in-service training necessarily takes the form of short vacation courses; and this method is fast proving inadequate. It is therefore planned that :

(i) the English Teaching Unit be absorbed by the USP's School of Education and be developed into an in-service training centre, for all subjects, capable of accommodating 60 teachers at a time throughout th year;

(ii) the new Lautoka Teachers' College have 60 places available at any one time for courses lasting up to three months each; and

(iii) so far as possible, up to 30 places be made available at the rebuilt Nasinu Training College for similar courses (the courses themselves probably being held at the University of the South Pacific).

The need for further training overseas, especially for specialist teachers, and specifically for teachers of technical subjects, will continue throughout the Plan period.

17.47 To ensure adequate co-ordination, consultation and co-operation between those responsible for curriculum development, in-service training and the external examinations system, it is proposed to build in 1973 a Teachers' Centre in Suva for use by curriculum writers, syllabus revision committees, library committees, subject specialists, in-service training organisers, examination panels, teachers' college staffs and practising teachers. Apart from office accommodation and display and lecture-room facilities, the Centre will also include facilities for :

(i) the production and maintenance of basic science equipment and teaching aids;

(ii) the storage and subsequent distribution to schools of school library books and of free issues of text-books and resource material, etc.; and

(iii) an educational resource library.

17.48 The capital expenditure involved in teacher training projects is shown in Table 17.10.

Table 17.10: Capital Expenditure Programme, Teacher Training

($ thousand)

	1971	1972	1973	1974	1975	Total
Lautoka Teachers' College	—	—	500.0	750.0	—	1,250.0
Nasinu Teachers' College	375.0	80.0	—	—	—	455.0
Suva Teachers' Centre	—	—	40.0	—	—	40.0
Total	375.0	80.0	540.0	750.0	—	1,745.0

Fijian Education

17.49 Special measures to reduce the educational gap between Fijians and other races will include:

(i) the award of scholarships to all deserving Fijian applicants;

(ii) the expansion of teacher-education facilities and an improvement in the quality of teacher-education, which are likely to have a greater impact on rural than urban education;

(iii) the opening of strategically placed Junior Secondary schools, the great majority of which will be established in areas (predominantly Fijian-inhabited) which at present have few or no day secondary schools;

(iv) the operation of the 'hostel grant' vote, which will be aimed mainly at improving boarding facilities in rural primary and Junior Secondary schools;

(v) the possibility of subsidising bus and boat fares for children who have to travel long distances to school;

(vi) the inauguration of a vigorous, and probably prolonged, 'public relations' campaign designed to encourage in Fijian parents, particularly in rural areas, a greater appreciation of the educational needs of their children;

(vii) the possibility of using village churches for regular and supervised after-school-hours study, homework, and for pre-school education;

(viii) the acquisition of more vessels to enable the Department's field staff to make more frequent and longer visits to schools which can be reached only by sea;

(ix) the provision of better staff quarters to enable rural schools to attract and retain the services of better qualified teachers;

(x) a more generous allocation of books and equipment for rural schools;

(xi) greater efforts (by amalgamations or by the provision of transport facilities, etc.) to reduce the need for multiple-class teaching in rural schools, especially in upper primary classes;

(xii) a more generous provision for remission of fees in primary schools, and for free and partly free places in secondary schools for Fijian students.

Administration

17.50 The policies planned for the 1971-75 period will necessarily involve some increased capital expenditure to enable the Department of Education to effectively administer the programmes. Table 17.11 shows the planned capital expenditure. It includes various miscellaneous items, but does not include three new vessels, as these are included in the Marine Department's capital expenditure programme, nor does it include finance for the increased office space required by the Department as this comes under the Ministry of Communications, Works and Tourism.

Table 17.11 : Capital Expenditure Programme, Miscellaneous

	1971	1972	1973	1974	1975	Total
Vehicles	—	—	—	8.0	6.0	14.0
Office Equipment	2.0	2.0	2.0	2.0	2.0	10.0
Routine Requirements	20.0	20.0	21.0	22.0	23.0	106.0
Staff Quarters	—	20.0	30.0	40.0	50.0	140.0
Total	22.0	42.0	53.0	72.0	81.0	270.0

17.51 **A New Structure for Administration/Inspection.** It is intended to replace the existing six Education Districts by 16 Education Districts, corresponding to the 18 recently-established District Development areas less Rotuma (which will be combined with Kadavu) and the Yasawas (which will be combined with Lautoka). Each of the 16 Districts will be in the charge of a District Education Officer or Assistant Education Officer, according to the number of schools involved. There will be four Divisional Education Officers of Senior Education Officer status, whose responsibilities will extend to secondary as well as primary schools.

17.52 It will be some years before all existing Visiting Teachers can be replaced by a corps of Educational Advisers of the calibre recommended by the Fiji Education Commission. In the meantime it is intended that Visiting Teachers — whose numbers will decline as Educational Advisers are appointed — will cease writing inspection reports on teachers as from the end of 1970 and will devote their full time thereafter to helping and demonstrating. Reports on assistant teachers will from 1971 be written by their Head Teachers; reports on Class Two and Class Three Head Teachers will be written by the appropriate District Education Officer or Assistant Education Officer; and reports on Class One Head Teachers (and on Class Two teachers being considered for promotion) will be written by the Divisional Education Officer. Reports on secondary school teachers will continue, for the time being, to be written by the secondary inspectorate based in Suva.

CHAPTER 18

GOVERNMENT SERVICES — HEALTH

Development Plan V programmed capital expenditure of $4.9 million during 1966-70 for new and expanded medical services. The bulk of this investment was for the expansion, replacement and construction of hospitals, in order to achieve a more rational distribution of facilities, and for the construction of a complete network of rural medical stations. Actual capital expenditure over the 1966-70 period was about $3.0 million. This substantial shortfall of actual below planned expenditure has been almost wholly due to delays over Lautoka hospital. The creation of the rural health network has been virtually completed, a start on a similar urban service has been made and a number of district hospitals have been created or reconstructed.

18.2 The medical policies and programmes for implementation in the period of Development Plan VI aim to complete the rural medical station programme, to continue the expansion of the urban programme, and primarily to reconstruct and expand the hospital facilities in the main centres of population. These facilities are in a number of cases totally inadequate since higher priority in recent years has been given to the provision of rural health services and the modernisation and creation of district hospitals.

18.3 The Government's Medical Service is essentially a national health service. The private sector is confined to some 26 general practitioners, a Government-subsidised hospital in Ba and another small private hospital in Suva. It is intended to retain this pattern in the provision of medical services, and to continue to keep the structure of medical charges at a level whereby no one has to forego medical care through lack of funds.

General Hospitals

18.4 The reconstruction, expansion and improvement of hospital services during the Plan period is to be confined to Suva, Lautoka and Labasa. Of highest priority is the reconstruction of Lautoka Divisional Hospital. This project was included in the 1966-70 Plan but because of delays will be implemented during the present Plan period. This new modern hospital has been designed to provide in-patient and out-patient facilities for the surrounding district, and specialist facilities for the whole Western Division. The design includes a six storey ward block, separate theatre and maternity blocks, and wings for out-patients and ancillary services. The planned initial capacity is 300 beds although the site and basic services will eventually be capable of supporting a hospital of around 600 beds. The total cost of this project is estimated at $7,000,000 and it is planned to be completed in 1973.

18.5 Of second priority is the construction of a new Divisional hospital at Labasa. The existing inadequate structure has a capacity of 99 beds. The new hospital will retain 30 of these and add a further 112 beds. The design is for a mainly two storey hospital which will provide expanded in-patient facilities in the Northern Division. The total cost of this project is estimated at $650,000 and it is planned to be completed in 1973.

18.6 The construction of a new maternity block in Suva has been under consideration for many years. It is now planned to construct a six storey unit adjacent to the present hospital which will replace the two existing maternity units. The new block will cater for 3,500 deliveries per year and 100 ante-natal patients a day. It will consist of some 85 beds, two operating theatres, six delivery rooms, a premature baby unit and various ancillary services. The total cost of this project is estimated to be $650,000 and it is planned to be completed during 1974.

18.7 Out-patient facilities in the major urban centres are almost entirely provided by the out-patient departments of the main hospitals. Current yearly attendances at these departments average over 3,000 per 1,000 of the population, causing considerable overcrowding. Ideally these hospitals should only deal with cases referred from peripheral clinics and therefore it is planned to make a start in providing urban Health Centres. The first of these is likely to be in Suva. It is estimated to cost $40,000 and is planned to be constructed in 1975.

Special Hospitals

18.8 It is anticipated that the need for tuberculosis beds will continue to dwindle. It is intended to convert the present Anderson Maternity Unit at the Colonial War Memorial Hospital for use as a chest clinic after the new maternity unit is built. The tuberculosis wards at Labasa and Lautoka will be converted into psychiatric units and the few cases of tuberculosis will be treated in isolation cubicles in the medical wards.

18.9 The new policy for the treatment of leprosy, which involves rendering new patients non-infectious at the new Leprosy Hospital and then early discharge to domiciliary treatment, will cause the gradual decline of the disease. The present facilities are considered adequate. The leprosy beds together with those at St. Elizabeth's Home represent a bed/population ratio of 0.24 beds/1,000 reducing to 0.22 beds/1,000 in 1975.

18.10 There is a need to provide additional beds for the treatment of mental disorders. St. Giles Hospital has a nominal accommodation for 98 patients, but by June 1969 there were 201 in-patients. The rapid increase in the number of in-patients is due to several factors: the rapid increase in the overall population; the urban shift and the creation of social pressures; the development of education services with a consequent increase in the number of people under stress; the public realisation that 'lunacy' is merely another form of disease which is largely amenable to treatment and the increasing breakdown of the Fijian communal system under which the mentally ill were formerly retained within the protective circle of the village.

18.11 In Fiji, the number of psychiatric in-patients has been kept low by means of a vigorous 'revolving door' policy by which patients are discharged as rapidly as possible to domiciliary treatment. The domiciliary care is supervised by field staff.

This policy entails a high rate of readmissions and high passage costs but it is realistic and will be further developed in the future. Although the present incidence in Fiji of mental disorders appears low it is probable that not all cases present themselves for treatment, and their incidence, both real and apparent, is likely to rise steeply in the next ten years. The requirement is therefore for the provision of 330 beds as soon as possible, with scope for further development to provide 500 beds in the not too distant future.

18.12 The present site of St. Giles' Hospital is on a ridge overlooking Suva Harbour which is commercially valuable but too constricted to permit development on the scale necessary. It would therefore be bad planning to expend funds on the extension of the hospital on its present site. However, with the imminent run down of tuberculosis as a major health hazard, and the need to build a nursing school at the Colonial War Memorial Hospital, the opportunity presents itself to earmark the combined Tamavua Hospital-Nursing School complex for a joint psychiatric-geriatric hospital development. This plan would release the valuable St. Giles' Hospital site for re-development. In addition it is proposed to convert the present tuberculosis wards at Labasa and Lautoka for use as psychiatric wards.

The Rural Health and Preventive Services

18.13 The reorganisation of the rural health service and the development of a comprehensive preventive service has been one of the main features of the 1966-1970 Plan. The detailed re-design of the organisational structure has been completed and a large part of the plan has been implemented. The programme is already providing considerable dividends and it will be necessary to complete the network of stations in the next five years.

18.14 The structure at the divisional level is completed but extensions and modifications will be required to the health offices in Suva, Lautoka and Labasa. The construction of sub-divisional units will be completed by the end of 1970, with the exception of the need to set up a new subdivision to provide for the islands of Moala, Matuku and Totoya. At the 'area level' considerable progress has been made in the replacement of the old dispensaries by small area health centres. Only three of these remain to be built in the DPVI period. On average an area health centre provides remedial public health services for 4-5,000 people. Each area is divided into nursing districts so as to provide a public health nurse for every 2,000 people. This policy will require the provision of 13 additional nursing stations as well as the replacement of 31 existing bure nursing stations by modern counterparts. The total cost of completing the whole rural network is estimated at $193,000.

18.15 It is considered that considerable dividends will accrue from the proposed expansion of public health nursing services and this development is perhaps the most important planned for completion in the 1971-75 period. The public health nurse forms an essential part of the area medical team. Her duties involve ante-natal care and home delivery service, family planning, immunisation of babies and general baby care, school health, treatment of minor disorders and the home visiting of patients on domiciliary treatment of tuberculosis, leprosy, mental disorder and acute rheumatism.

Urban Public Health Nursing Zones

18.16 The rural public health nursing service has proved so successful that a start has been made on the provision of a similar service in the main centres of population. It is intended to provide one public health nurse for every 10,000 people to provide a domiciliary service particularly orientated, to improving Family Planning, immunisation coverage and standards of child health. This plan will run *pari passu* with the provision of urban health centres.

Preventative Campaigns Against Individual Diseases

18.17 The present organisation is adequate to reduce the problems of both tuberculosis and leprosy to insignificant levels within the next few years. Immunisation against tetanus has proved successful and there has been a rapid decline in the number of reported cases of adult tetanus and tetanus of the new-born. The immunisation of children currently provides protection against tuberculosis, whooping cough, diphtheria, tetanus and poliomyelitis. It is planned to add measles and rubella to the list during the Plan period providing that reductions in the price of vaccines make this practicable. Measures are already under way to improve the level of coverage of child immunisation, which is currently around 85 per cent.

18.18 Nearly 20 per cent of people living in the copra growing areas are infected with filariasis. A start was made in 1969 to control the disease in the southern half of Vanua Levu and in Rabi, Taveuni, Koro and Rotuma, by the administration to the entire population of a two-year course of treatment with the drug Hetrazan. In 1970 the control area was extended to include Lau and northern Vanua Levu. In 1971 it will be extended to Lomaiviti and Kadavu. The control area will be extended each year until all infected areas have been embraced by the campaign. This is planned to be achieved by 1975. The programme will entail the development of a central control laboratory at Savusavu, but it is intended eventually to move this laboratory to Suva. The laboratory will finally consist of a staff of eight to ten, six of whom will be blood film scanners.

18.19 A reduction of hospital admissions of 25 per cent has been observed in Taveuni and Savusavu since the inception of the campaign, and it is now clear that more illness and hospital admissions have been due to filariasis than was formerly recognised. An all-out attack on the disease with a consequent decrease in recurrent expenditure on hospitalisation therefore has a favourable cost-benefit ratio. The campaign is also very effective in improving public relations between the public and the Medical Department.

18.20 Preventive techniques already encompass most of the communicable diseases susceptible to the method and the process will be gradually extended to control non-communicable conditions such as anaemia, diabetes, heart disease and cancer.

Maternal and Child Health Services

18.21 The great majority of mothers already attend antenatal clinics either at the main centres or at rural clinics. In 1968, about 60 per cent of babies were delivered in hospital, a further 20 per cent by district nurses and the remainder by untrained personnel. New maternity units are planned for the Colonial War Memorial, Lautoka, and Labasa Hospitals, together with smaller facilities to be constructed at Korovou and Navua. These units, together with the existing units, will provide satisfactory cover for most of the centres of population. The provision of maternity units is impracticable for areas with populations of less than 10,000 people and in these areas delivery will be undertaken by district nurses.

18.22 The Family Planning campaign is run as part of the general health service. Although the birth rate has fallen considerably in recent years there are signs that the campaign has already covered the most easily motivated groups and is now running into increased resistance. Plans are in hand to increase the number of personal interviews and to improve the follow-up of individual cases. The planned increase in the number of rural nurses and the introduction of urban nursing zones will assist in this aim, but it may prove necessary to increase the number of trained Family Planning nurses in the main centres of population.

Dental Services

18.23 The Dental Service is mainly orientated towards public health dentistry among school children and as such will benefit greatly from the fluoridation of water supplies in the main towns. It is hoped that this will become an essential component of Government's overall water supply policy. During the years 1966-70 the dental effort was directed mainly towards the development of mobile dental services whereby technically advanced preventive services are taken into the classroom. Seven mobile clinics are already operating from three main and four sub-divisional centres and it is planned further to increase the coverage in the next five years by bringing into service several additional mobile clinics which will operate out of divisional and sub-divisional centres.

18.24 Wherever possible limited dental facilities are also provided for adults, but at present this is necessarily restricted almost entirely to emergency treatment for the relief of pain and the provision of a low cost denture service for the poorer sections of the communities in Suva and Labasa.

8.25 The proposals for the development of dental services n the 1971-75 Plan period include the further development of ublic health dentistry in schools, the provision of more ex-ensive static clinics in the new hospitals at Lautoka and Labasa nd the provision of additional dental clinics at those sub-divisional centres which are not so served at the present time. his will also allow the development of a denture service at Lautoka.

Personnel and Training Facilities

18.26 Fiji currently has 214 doctors of whom 188 are in Government service. The doctor/population ratio is one doctor for 2,400 people. This ratio is better than the world averag but does not compare with the ratio of 1:600 to 1:1,000 fo developed countries. Increasing prosperity will inevitabl stimulate an improvement in this ratio and if a target docto population ratio of 1:2,000 by 1975 is assumed, this will requi an additional 86 doctors. It is anticipated that 50 of these wi be available from local sources but the 30 additional doctor will have to be provided from overseas.

18.27 An expansion of the Medical School intake will requir a considerable overall development of the School, not only i buildings but in teaching strength and student accommodatio In this context it is to be noted that discussions will continu between Government and the University of the South Pacifi concerning the extent to which the University might assum responsibility for medical education in Fiji and the surroundin territories.

18.28 The present training facilities for dental officers, dent hygienists and mechanics have proved adequate in the pas however, it will be necessary to develop these facilities if th standards of the dental services are to be improved above presen levels. These developments will require the appointment o additional teaching staff to the dental school, with a view no only to improving teaching standards but also to enable curriculum development to take place.

18.29 Little post-graduate dental education has so far bee provided for local graduates either in Fiji or overseas and is proposed to remedy this deficiency during the Pla[illegible]erio However, it will be necessary to expand the dental officer establishment before the scheme for post-graduate dental educatio can be implemented.

18.30 The present nursing establishment, exclusive of th staff of the Nursing School, consists of 122 senior nursing sta and 642 junior sisters and staff nurses. The approximate overa total nurse/population ratio is therefore one for every 69 people. The need to provide one rural nurse for every 2,00 rural inhabitants, apart from the special nursing needs of scattered populations and small islands, has already been noted.

18.31 Present patient/nursing staff ratios at district an rural hospitals are largely satisfactory but in the main hospital a gradual improvement of standards, the introduction of a five-day week and the opening of additional beds will require an increase in staff nurse strength of 50 per cent over the five-year period as well as a 20 per cent increase in the number of senior nursing staff. All of this implies a requirement for 190 additiona nurses.

18.32 It is fortunate that an increasing proportion of nurses are returning to work after marriage so that the wastage rate of trained nurses is very low. In consequence the nurse-training establishments in Suva and Lautoka will have sufficient capacity to provide the additional nurses required to implement the requirements. This, combined with the planned construction of a new nursing school will ensure an adequate supply of additional nurses to meet the demands in the 1971-75 period and for some time thereafter. The new nursing school is estimated to cost $430,000 and is planned for completion in 1975.

Staff Mobility

18.33 The ratios between the number of doctors and nurses and the overall population have been discussed and although the quality of the service largely depends on these considerations, an additional and important factor is the provision of means of transportation both on land and, where appropriate, by sea. The policies on the provision of vehicles, punts and launches for medical officers have long since been established and it is now necessary to consider the provision of vehicles for the use of the district nurses. It is planned to provide suitable small vehicles for district nurses to enable them to improve both their population coverage and the general efficiency of their services. Minivans and minimokes are generally suitable for this purpose although in certain places where two or more nurses work out of the same Health Centre, a Land Rover with a driver will be required.

Health Inspectorate, Quarantine Services and Environmental Sanitation

18.34 The reorganisation of the Health Inspectorate has brought this division in line with the general Departmental structure. Four Divisional health inspectors have been appointed and it is intended to appoint a fully qualified health inspector to each sub-division. Divisional health inspectors will be supported where necessary by health inspectors and assistant health inspectors, while additional assistant health inspectors will be provided to assist at the sub-divisional level. The School of Hygiene is capable of training the extra personnel required by this programme.

18.35 The increased activity at seaports and airports resulting from economic development and more particularly from the tourist industry, together with the possibility of an increase in the number of ports of entry, will require an increase in the staff allocated to quarantine duties. It is intended that nurses should be used to service the additional facilities to be provided at Nadi Airport. Additional health inspectorate staff will be required for the growing amount of port health work in Suva, Lautoka and Levuka, and for any new ports of entry.

18.36 The average expectation of life at birth increased between the 1956 and 1966 Censuses by an average of six years in the case of Fijians and by 2.5 years for Indians. The infant mortality rate fell to a record low of 21.76 in 1969. These vital statistics indicate the presence of a high standard of health in the community but this standard will be threatened if standards of environmental sanitation are allowed to deteriorate as population pressure builds up.

18.37 The first essential is the provision of satisfactory water supplies for areas not already supplied, and the present arrangements for the provision of rural water supplies devised and launched by the Medical Department have grown so rapidly as to tax the present capacity of the water supply section of the Public Works Department. Funds for rural water supplies at this stage are more valuable to the health of the community than perhaps any other measure.

18.38 The provision of piped water makes possible the installation of water-seal latrines, which are infinitely more hygienic than the traditional pit latrine and have the additional advantage of reducing the fly and mosquito menace. Some 10,000 water-seal latrines have been installed in the past few years and it is planned to issue plastic liners to fit into standard concrete moulds at a subsidised price of about one dollar per unit. The remainder of the cost will be met from Departmental funds.

Supplies Policy

18.39 The overall standard of the hospital food service has been considerably improved in recent years by the increase in the number of dietitians and the introduction of standard operating procedures for all Medical Department institutions. However, an improvement in the general standard of living will inevitably lead to the need to improve the standard of hospital diets and it will be no longer possible to pay for such improvements from savings induced by an improvement in overall efficiency. It is inevitable therefore that the cost of ration stores will rise sharply in the next five years, not only to match the general increase in prices but also to provide for an overall improvement in the quality of institutional feeding.

18.40 Expenditure on drugs is closely controlled. The range of medicaments provided varies with the level of service; i.e. nursing station, health centre, or area, sub-divisional or divisional hospital. The range of drugs provided is limited and it is not possible to provide the latest or fashionable drugs except in small quantities for trial by individual consultants. On the other hand, every effort is made to provide in full the requirements of standard drugs and these are supplied free of charge to patients at Medical Department clinics. In addition to the Departmental standards, special drugs are provided and charged for according to a simple means test. The under-privileged are provided with these without charge, those people who can pay something are provided with such drugs at very low cost, while those who can clearly afford them are given a chemist's prescription.

18.41 It is proposed that this general policy should continue but that the range of the general special drug lists should be improved. It is particularly important to improve the range available to the rural population. The adoption of this proposal will require an annual increase in the drug bill of 30 per cent in the first year followed by annual increases of 15 per cent over the remaining period of the Plan.

The DPVI Capital Programme

18.42 The projects outlined in the preceding paragraphs will involve an estimated capital expenditure of $9,095,000 during the Plan period. This represents an increase of 200 per cent over the estimated capital expenditure actually achieved in the previous Plan period. Table 18.1 summarises the planned 1971-75 expenditure and shows its phasing over the five-year period.

Table 18.1 : Capital Expenditure Programme, Health

($ thousand)

	1971	1972	1973	1974	1975	Total
Lautoka Hospital	1,950.0	2,900.0	2,150.0	—	—	7,000.0
Labasa Hospital	200.0	200.0	250.0	—	—	650.0
CWM Maternity Block	—	100.0	200.0	350.0	—	650.0
New Nursing School	—	—	—	100.0	330.0	430.0
Navua and Korovou Maternity Units	10.0	—	—	—	—	10.0
Urban Health Centre	—	—	—	—	40.0	40.0
Rural Health and Nursing Centres	93.0	30.0	30.0	40.0	—	193.0
Vehicles and Mobile Clinics	10.0	10.0	10.0	10.0	10.0	50.0
Extension of Government Pharmacy	26.0	—	—	—	—	26.0
Routine Requirements	6.0	10.0	10.0	10.0	10.0	46.0
Total	2,295.0	3,250.0	2,650.0	510.0	390.0	9,095.0

CHAPTER 19

GOVERNMENT SERVICES — ADMINISTRATION AND WELFARE

Administration

Development Plan V programmed capital expenditure o $5.7 million for administration. Actual expenditure fell short o the amount planned by some $750,000. This was partly du to the limited capacity of the construction industry, and part to cost escalation resulting in postponement of several project

19.2 Projects which were completed within the DPV perio include District Office improvements in several parts of th island group. Expenditure on the construction of accommod tion for the Fiji Military Forces virtually kept pace with budgete expenditure. Suva Police Headquarters was extended as planne The Stationery Division was moved nearer to Governmen Buildings, and some of the Printing Department's capital equi ment was replaced. A new Customs House in Suva was com pleted in 1967, according to plan. A new office block fo Government departments and a number of staff quarters wer also constructed during the period. Additional office space wa rented by Government in 1969, in the Development Bank buil ing in Suva. The Judicial Department's Labasa Courthous project and the Courthouse at Ba were finished in 1968. On project not foreseen in DPV was the alteration of St. Stephen Building, required for the installation of a new computer fo the Ministry of Finance, which took place in 1970.

19.3 Construction work in progress at the end of the Pla period included quarters for Customs' staff at Nadi Airport, th Lautoka Courts and the Police Training School which is du for completion in 1972. Work had not started on the Goverr ment Administration Training Centre nor on the Courthou projects at Nausori, Tavua and Samabula; as a result of review of priorities these projects, with one exception, are i cluded in the DPVI programme only as reserve projects.

The DPVI Capital Expenditure Programme

19.4 Development Plan VI plans for a capital expenditu programme of $4,151,500 on administration projects. The follo ing paragraphs detail the allocation of this expenditure.

19.5 **Office of the Prime Minister.** Expenditure of $925,0 is planned under this head. The construction of a new Cha cellery for the Canberra High Commission is scheduled for 197 It is estimated to cost $150,000. The new Parliament Building Suva, planned for 1974 at a cost of $750,000 will house the tw chambers of the legislature, the Prime Minister's Office, th Cabinet Room, Cabinet Offices and facilities for State entertaining. The remaining $25,000 of the budget is to be used for the building of a new Council House in Rotuma.

19.6 **Fiji Military Forces.** The main emphasis in this programme is on accommodation projects to cater for the proposed expansion of the Fiji Military Forces. Maisonettes and Grade

IV quarters will together house 90 men at a total cost of $155,000. The rest of the building programme at the Queen Elizabeth Barracks, Suva, includes a new barracks blocks costing $50,000, a classroom block costing $10,000, and two messes together costing $30,000. These projects are planned to be completed by 1972.

19.7 **Ministry of Labour.** A Trade Testing Station costing $62,000 is planned for Vatuwaqa in 1971. It will comprise a single storey block to house a workshop, an examination room, offices and associated facilities.

19.8 **Police.** A project at Labasa costing $60,000 will comprise a new Divisional Headquarters and police station with the usual facilities. A training school, which is to be constructed at an early stage, will be a complex containing classrooms, office accommodation and store facilities. This will allow the greater throughput of police cadets needed for the expansion of the Force. It is intended to establish a camp in the Suva area to provide living accommodation, specialised training and ancillary facilities for a mobile force of 110 men, who will be initially trained at the new school when it is completed. Over the DPVI period, it is intended to expand the police force by 147 men. The quarters building programme (extending over three divisions) will provide 38 quarters costing, together, $80,000. A police station at Nadi costing $25,000 will have an office, chargeroom, storage, cell and garage facilities. Extensions to the Suva Headquarters will provide a communications, planning and control centre together with two large store rooms. The estimated cost is $100,000.

19.9 **Printing and Stationery Department.** The urgently needed new Printing Office is to be built at Vatuwaqa over the last three years of the Plan at a total cost of $400,000. The project includes the provision of a Grade V quarter for a resident caretaker.

19.10 **Central Archives Department.** Once replaced, the present Printing Office is to be converted into a building suitable to house all Government Archives, at an estimated cost of $14,500.

19.11 **Custom and Excise Department.** Extensions to the Collector's Offices at Suva and Lautoka in 1972 will cost an estimated $5,000. The Suva project will accommodate the Examination Division and provide more room for all operations, while that at Lautoka will provide a separate office for the Senior Collector. The use by 'jumbo jets' of Nadi Airport in the early 1970s necessitates the construction of additional quarters to house the extra Customs staff required. The estimated cost is $48,000.

19.12 **Ministry of Communications, Works and Tourism.** A total of $1,245,000 is to be spent over the DPVI period by this Ministry, including $200,000 towards the continuing quarters building programme in all districts. The construction of a new block of offices costing $800,000 to house Administrative Departments and Ministries, is due to start in 1973. In the meantime the construction of temporary offices space will cost $100,000. Furnishing for rented quarters, it is estimated, will cost $29,000 per year over the Plan period.

Table 19.1: Capital Expenditure Programme, Administration

($ thousand)

	1971	1972	1973	1974	1975	Total
Office of the Prime Minister						
High Commission, Canberra	150.0	—	—	—	—	150.0
Parliament Building	—	—	—	120.0	630.0	750.0
Rotuma Council House	25.0	—	—	—	—	25.0
Total	175.0	—	—	120.0	630.0	925.0
Fiji Military Forces						
Maisonettes	20.0	20.0	20.0	20.0	20.0	100.0
Grade IV Quarters	11.0	11.0	11.0	11.0	11.0	55.0
Other Buildings	85.0	5.0	—	—	—	90.0
Equipment	4.0	—	—	—	—	4.0
Total	120.0	36.0	31.0	31.0	31.0	249.0
Labour Department						
Trade Testing Centre	62.0	—	—	—	—	62.0
Police						
Labasa Headquarters	60.0	—	—	—	—	60.0
Training School	196.0	—	—	—	—	196.0
Nadi Headquarters	25.0	—	—	—	—	25.0
Suva Headquarters	—	50.0	50.0	—	—	100.0
Quarters	—	20.0	20.0	20.0	20.0	80.0
Routine Requirements	4.0	4.0	4.0	4.0	4.0	20.0
Mobile Force Camp	270.0	80.0	—	—	—	350.0
Vehicles and Equipment	4.0	4.0	4.0	4.0	4.0	20.0
Total	559.0	158.0	78.0	28.0	28.0	851.0
Printing and Stationery Department						
New Government Press	—	—	100.0	200.0	100.0	400.0
Technical Equipment	11.3	4.5	9.7	15.5	23.5	64.5
Total	11.3	4.5	109.7	215.5	123.5	464.5
Central Archives Department						
Conversion of Printing Office	—	—	—	—	14.5	14.5
Microfilm Equipment	—	—	3.0	—	—	3.0
Total	—	—	3.0	—	14.5	17.5
Customs and Excise Department						
Extension to Collectors' Offices	—	5.0	—	—	—	5.0
Quarters (Nadi Airport)	8.0	20.0	20.0	—	—	48.0
Total	8.0	25.0	20.0	—	—	53.0
Ministry of Communications, Works and Tourism						
Official Quarters	—	50.0	50.0	50.0	50.0	200.0
Office Block (Suva)	—	—	200.0	400.0	200.0	800.0
Temporary Office Accommodation	50.0	50.0	—	—	—	100.0
Rented Quarters Furniture	29.0	29.0	29.0	29.0	29.0	145.0
Total	79.0	129.0	279.0	479.0	279.0	1,245.0
Judicial Department						
New Lautoka Courts	172.5	—	—	—	—	172.5
New Nadi Courthouse	—	—	—	96.0	—	96.0
Supreme Court (Airconditioning)	16.0	—	—	—	—	16.0
Total	188.5	—	—	96.0	—	284.5
GRAND TOTAL, ADMINISTRATION	1,202.8	352.5	520.7	969.5	1,106.0	4,151.5

19.13 **Judicial Department.** Of a total budget of $284,500 it is anticipated that $172,500 will be spent in the first year of the Plan on the completion of the new law courts at Lautoka — one a Supreme Court, the other a Civil Court. The building will provide accommodation for Crown Counsel, an Assistant Registrar General, their office staff and the Social Welfare Department's Lautoka Probation Offices. A further $96,000 is to be spent on a new Magistrates' Court at Nadi, providing Magistrates' chambers, a law library and ancillary facilities. The remaining $16,000 of the budget will be spent on renovating the Supreme Court in Suva and completing the installation of air conditioning.

19.14 Table 19.1 shows the planned level and phasing of expenditure on administration projects.

Social Development and Welfare

The Social Development and Welfare Division of the Education Department became a separate department in January 1968, following the recommendation of the Advisory Mission on the Treatment of Offenders. The new department took over responsibility for the work of the former division, expanded the probation section and became responsible for destitute relief and aid to voluntary organisations.

19.16 During Development Plan V the number of staff in the Department was increased from 30 to 59, reflecting the considerable expansion in the work and responsibilities of the Department. Several new district offices have been opened during the past five years and further office and staff expansion is envisaged during the DPVI Plan period.

19.17 The only expenditure project programmed for the Department during DPV was the construction of a new approved school for 10 to 15 year olds. This project was not implemented because of siting and capacity problems, but is now scheduled to be built during DPVI.

Social Welfare Policy

19.18 The functions of the Department fall into two groups, statutory and non-statutory. The statutory functions involve dealing with matrimonial disputes, adoption, child-care, treatment of young offenders and probation. The Department will continue to attend to these functions and expand their services to cope with the increasing amount of court work and to enlarge their coverage of the population.

19.19 The non-statutory functions of the Department may be summarised as involving the provision of general welfare services (especially to the destitute and aged), assistance to voluntary organisations and the promotion of women's interests. The policy of the Department towards its non-statutory functions is under review. It will, however, remain Government policy to help others to help themselves rather than to take the whole burden of a social welfare programme upon itself. The ways in which Government can best give this help are still being assessed and the Government is seeking, and will continue to seek, help from existing voluntary organisations and national bodies in formulating its welfare policies. The social development programme of the Government is still in its infancy, but it is anticipated that, over the next five years, Government's role will become clarified and enlarged. As an example, one national bod has already indicated that it feels the Government is in a bette position than itself to allocate funds to the different voluntar organisations and, in this sense, to co-ordinate their work.

19.20 More specifically, the Government will continue t provide relief payments to destitutes, at or above the same leve but is reviewing the method of payment in order to base it o a more accurate assessment of need. The Department wi become involved in the Government's low income housing effor as outlined in paragraph 19.46. The three homes for th aged will continue to be administered by the Department an the home at Samabula will have minor improvements mad during 1971. The Department will continue to encourage voluntary organisations by providing finance for initial organisation costs, staff training, minor recreational facilities and salarie staff, where the latter are needed in order for an organisation t function effectively. The Department will also take a mor active role in fostering the formation of new voluntary organis tions to deal with particular social needs which may b identified. Examples of this latter policy are the recent formatio of the Prisoners After Care Society and the Marriage Guidanc Council.

19.21 In addition to the expansion outlined above the Department could become involved in a youth volunteer movemen if this were to be set up. The suggestion for such a movemen has been discussed at some length in recent months by th Student Christian Movement.

19.22 The promotion of community development programm as undertaken at present by the women's interest section of th Department will continue and be expanded.

DPVI Capital Expenditure Programme

19.23 The capital programme for the Department, detaile in Table 19.2, involves three items of expenditure which tot $280,800. The major item is the construction of a new Approve School for boys at a cost of $256,60[illegible]lanned for 1973 and 197 This new school is to house 40 to 50 juvenile offenders aged 1 to 15. The completion of this new building will enable a bett segregation of young offenders.

19.24 The two other projects involve expenditure of $15,00 to improve the facilities at Samabula Old People's Home an $9,200 on vehicles for the Department.

Table 19.2: Capital Expenditure Programme, Social Development and Welfare

($ thousand)

	1971	1972	1973	1974	1975	Total
Approved School Building	—	—	100.0	156.6	—	256.6
Improvement to Old People's Home	15.0	—	—	—	—	15.0
Vehicles	2.2	—	3.0	—	4.0	9.2
Total	17.2	—	103.0	156.6	4.0	280.8

Prisons

Over the period since 1965 the prisons service has been expanded by the addition of 67 staff and a capital expenditure programme of about $1 million. This latter achievement compares favourably with the planned expenditure of $950,000, but the staff increase has been only about half as great as planned. This has left the service with a considerable staff shortage and, although a shift system was introduced during the period, the staff are still required to work excessively long hours.

19.26 During Development Plan V a considerable amount of construction work at Naboro prison was undertaken. When completed this new prison complex will contain a security/training prison to accommodate violent criminals, recidivists and security risks; a medium security prison to accommodate selected prisoners on medium or long-term sentences and a minimum security prison to accommodate short-term prisoners from the Central and Eastern Divisions. It is anticipated that the first stage of the new complex will become fully operational in 1971. Other building work during DPV included the construction of a women's prison at Levuka, extra administration and training facilities at Labasa, Suva, Lautoka, Ba and Naboro gaols, and two temporary lock-ups for prisoners in transit, at Taveuni and at Savusavu.

Table 19.3: Prisons, Capacity and Staff, 1970
(persons)

Prison	Capacity
Naboro	
— Security/Training Prison [1]	64
— Medium Security Prison	96
— Minimum Security Prison	160
Local Prisons	
— Lautoka	40
— Ba	22
— Labasa	42
— Rotuma	6
Women's Prison	
— Levuka	26
Holding Gaols	
— Savusavu	4
— Taveuni	4
Remand/classification	
— Suva	205
Total, Prison Capacity	669
Staff	**Number**
Prison Officers	186
Other staff	42
Total, staff	228

[1] — by end of 1971.

19.27 The present situation in the prisons service is shown in Table 19.3. In addition to this permanent accommodation for a total of 635 male and 26 female prisoners there are a number of workshops for training prisoners in a variety of skills (industrial and agricultural) and ancillary housing for staff. The accommodation for prisoners compares with an average-daily prison population of 580 in 1969, which has been increasing at an average annual rate of around six per cent over the past eight years.

Prisons Policy

19.28 Basic prisons policy remains as laid down in the 1967 Report of the Mission on the Treatment of Offenders, subsequently revised by the former prisons adviser. The policy objectives may be summarised as follows:

(i) to provide prisons and other institutions making possible the effective classification and segregation of the various types of offenders, at the same time reducing overcrowding;

(ii) to provide special forms of training and employment for prisoners with a view to reducing recidivism and ensuring more effective rehabilitation.

19.29 With these objectives in view, the projects listed in Table 19.4 will continue the extensive programme begun during DPV. By the end of DPVI the number and size of prison facilities should be adequate to enable the correct classification and treatment of the number of prisoners likely to be in custody. Further expansion will be needed after DPVI to meet the projected prison population growth of about five per cent per annum. A reduction of this rate of growth will depend upon the effectiveness of Government's overall social policies.

19.30 It is intended that, as a part of the training and employment programme for prisoners, some new prison workshop and training facilities be built by the prisoners themselves. The building and utilisation of these additional facilities will further implement the second objective noted in paragraph 19.28. Equally important in order to achieve the goal of more effective prisoner rehabilitation, is increased prison staff so that more welfare work can be undertaken, and the scope of the training programmes can be broadened.

19.31 The Mission on the Treatment of Offenders indicated the desirability of reducing the period during which an unconvicted person was kept on remand. With the reduction in overcrowding at Suva gaol, remand facilities will be considerably improved, but a reduction in the period of remand depends primarily on the speed with which courts can clear the work before them. Both improvements in the physical facilities of the courts and increases in judicial personnel will therefore be required.

The DPVI Capital Programme

19.32 It is proposed to spend $570,300 on improving and extending prison institutions over the next five years. The detailed programme is set out in Table 19.4.

Table 19.4: Capital Expenditure Programme, Prisons
($ thousand)

	1971	1972	1973	1974	1975	Total
Naboro						
— security/training prison	172.0	—	—	—	—	172.0
— staff quarters	78.4	33.8	—	—	—	112.2
— administration centre	2.8	—	—	—	—	2.8
— workshops [1]	—	22.5	—	—	—	22.5
— medical centre [1]	—	10.0	—	—	—	10.0
— primary school [1]	20.0	—	—	—	—	20.0
Naboro, sub-total	273.2	66.3	—	—	—	339.5
Lautoka						
— remand block	—	12.5	—	—	—	12.5
— security/punishment block	—	—	3.0	—	—	3.0
— workshops [1]	—	7.5	—	—	—	7.5
Lautoka, sub-total	—	20.0	3.0	—	—	23.0
Nasinu						
— conversion of approved school	—	—	—	20.0	—	20.0
— kitchen extension	—	—	—	12.0	—	12.0
— dormitory for 20	—	—	—	18.0	20.0	38.0
— staff quarters	—	—	—	59.9	—	59.9
Nasinu, sub-total	—	—	—	109.9	20.0	129.9
Labasa						
— dormitory for 24	—	—	22.5	—	—	22.5
Vehicles	—	—	—	3.0	2.8	5.8
Siteworks for all projects	26.3	4.8	5.0	5.7	7.8	49.6
GRAND TOTAL	299.5	91.1	30.5	118.6	30.6	570.3

[1] — to be built by prison labour.

19.33 At Naboro, a total expenditure of $339,500 will complete the first stage of all three graded prisons. The bulk of this sum is to complete the security/training prison to accommodate 64 prisoners and to provide a further 28 quarters for the staff who will run the prison. Other expenditures include a small unit to house equipment for an administration centre, three workshops for the medium security prison and a medical centre and primary school to cater for the needs of the staff and their families.

19.34 At Lautoka, it is proposed to spend a total of $23,000 to provide a block to accommodate ten remand prisoners, a small block for prisoners who are security risks, and new workshops to make room for an extension to the dining facilities.

19.35 At Nasinu, the establishment of a reformative training centre, which is the final project in the programme to provide better segregation of types of prisoners, is planned for 1974. This project is intended to provide a 'borstal-type' institution for young offenders (15 to 18 year olds). The completion of this project, together with construction of the new Approved School, will mean that some young offenders, who are at present in prison, can be isolated from older and hardened prisoners and other, more juvenile, offenders (10 to 14 year olds), who are in the present Approved School, can be isolated from older boys.

In addition to converting the present Approved School building, once the new Approved School has been built, expenditure is envisaged for the extension of the existing kitchens, the addition of 18 more staff quarters and an extra dormitory for 20 offenders. The new Centre will house 86 boys when completed.

19.36 At Labasa, it is intended to build a dormitory for 24 prisoners to replace the present condemned building.

Staff

19.37 Over the next five years, it is intended to increase the number of prison staff by a further 44, comprising five senior staff, 36 prison officers, two staff nurses and one clerk. The cost of personal emoluments is projected to rise by 21 per cent over the five years, but only nine per cent of this is due to the addition of new staff. The number of staff quarters, as stated above, is to be increased by the addition of 18 quarters at Nasinu and 28 at Naboro.

Urban Housing

The rapid growth of the population in recent years, combined with the increasing attractions of town life, have generated a number of serious social and economic problems. Although the overall growth rate of the population is expected to decline during the Plan period, the growth of the urban population can be expected to continue to rise at a rapid rate. This will continue to result in numerous social and economic problems. One of these is the problem of supplying adequate urban housing. Already there are large numbers of people who have resorted to living in unsafe and insanitary dwellings or in overcrowded, costly, and unpleasant rented accommodation.

19.39 Apart from the rapid growth of the urban population a number of other factors have aggravated this situation. The extreme shortage of land available for urban housing has caused a rapid increase in land prices and rents. The most seriously affected group are those receiving low incomes, who are unable to afford the high costs of building and are unable to raise a mortgage, in part because in many cases they have no security of title and in part because they have insufficient income to service a loan.

19.40 The Housing Authority, which is Government's agency for housing low income urban workers, has already made substantial progress in the provision of accommodation. Table 19.5 shows the number of dwelling completed during the 1966-1970 period. The total number of dwellings completed by the Housing Authority since 1959 is 2,594. This compares with an estimated 28,700 urban wage earners in 1969.

Table 19.5: Dwellings Completed, Housing Authority, 1966-70

(number)

	1966	1967	1968	1969	1970[2]	Total
Dwellings completed[1]	149	312	112	668	532	1,773

1 — includes units purchased under the Home Purchase Plan.

2 — estimate.

19.41 During the period of the 1971-75 Plan the Housing Authority intends to concentrate on the provision of accommodation for low income groups in full time employment in the urban and peri-urban areas. The aim during the Plan period is to develop at least 200 acres per annum in the Suva Region, at least 90 acres per annum in the Lautoka region and smaller areas in other centres of population. The planned building programme is shown in Table 19.6. The successful implementation of this programme will raise the total number of units completed by the Housing Authority from 2,594 in 1970 to 7,215 in 1975.

Table 19.6 : Planned Completions, Housing Authority, 1971-75

(number)

	1971	1972	1973	1974	1975	Total
Dwellings completed	754	842	925	1,000	1,100	4,621

19.42 During the Plan period efforts to reduce the costs of building will continue. This will involve the construction of experimental houses and investigation of the possibilities of altering the regulations covering building and subdivisional standards. It is likely, however, that an increasing proportion of new sites will be allocated for flats and terraced houses, as the requirement for higher density housing increases. It is also planned to continue, where it is feasible, to pursue a policy of mixed development whereby 'profits' on high class residential sites are used to subsidise sites for low income earners.

19.43 To finance the planned programme the Housing Authority intends to continue to raise capital from local non-Government sources. The estimated volume of long-term loan finance required is shown in Table 19.7.

Table 19.7 : Loan Capital, Housing Authority, 1971-75

($ million, 1970 prices)

	1971	1972	1973	1974	1975
Loan Capital	2.1	2.3	2.5	2.7	3.0

19.44 These estimated requirements exclude the cost of purchasing undeveloped freehold or leasehold land. The Government intends to continue to provide land effectively free of cost to the Housing Authority, and to guarantee or make short-term loans available to facilitate site development. The Government is already committed to two such loans for the development of Housing Authority land at Vitogo-Drasa and at Nadera. Table 19.8 shows these commitments and the additional funds allocated in the Government's capital programme for the acquisition and development of land.

Table 19.8 : Capital Expenditure Programme, Housing Authority

($ thousand)

	1971	1972	1973	1974	1975	Total
Development of Vitogo-Drasa	200.0	105.0	75.0	55.0	75.0	510.0
Development of Nadera	100.0	—	—	—	—	100.0
Other Land acquisition development	—	195.0	225.0	345.0	425.0	1,190.0
Total	300.0	300.0	300.0	400.0	500.0	1,800.0

19.45 In addition to providing undeveloped land, and making short-term loans available for its development, the Government intends, during the Plan period, to increase the level of subsidy to the Housing Authority. At the present time this consists of an interest subsidy. Further subsidies of this type or in the form of a recurrent grant are currently under consideration. The objectives of increasing the subsidy are two-fold; first, to enable the Housing Authority to put its flats financially within the reach of a lower income group than at present; and second, to make it financially more attractive for the income groups currently eligible for flats. The recurrent cost of such a scheme is estimated at $52,000 for 1971, rising to $116,000 by 1975; however, the precise form and level of subsidy remain to be finalised.

19.46 To facilitate the development of Housing Authority land, and to make it easier for squatters to move their existing dwellings to new sites, the Department of Social Development and Welfare intends to make ex-gratia payments amounting to some $25,000 over the period of the Plan. These grants will only be for genuinely deserving people and will be limited to families;

(i) whose present dwellings are located in such a place that their removal is *essential* to carry out a Government or Housing Authority development scheme, *and*

(ii) who are earning less than the minimum required to occupy a minimum cost rental flat, *and*

(iii) who genuinely have nowhere else they could reasonably live.

19.47 Until recently the Housing Authority has been able to meet its income from three main sources: first, the interest earned on its initial capital grant from Government; second, the interest margin between its borrowing and lending rates; and third, Government rehabilitation loan repayments, which have been handed over to the Authority since 1964. The third of these sources has virtually dried up. The second has rapidly dwindled as the Authority's lending rate is pegged at 7.0 per cent per annum while borrowing rates have risen to nearly the same level. Thus the Housing Authority is no longer able to meet its administrative expenses. In future these will be met by Government. The estimated recurrent cost to Government is shown in Table 19.9.

Table 19.9: Administrative Expenses, Housing Authority, 1971-75

($ thousand)

	1971	1972	1973	1974	1975
Estimated Annual Cost	46.5	67.5	86.5	100.5	123.5

PART FOUR

PLAN IMPLEMENTATION

CHAPTER 20

ORGANISATION AND TECHNIQUES

In order to formulate a long-term plan for economic and social development it is necessary to make certain assumptions and forecasts as to the development potential of the country and the rate of economic growth, the finance available for current and capital expenditures in the public sector, the effects on the private sector of Government policies, the growth in demand for goods and services, the physical capacity for implementing Government projects, and many other factors. However careful and realistic the assumptions on which the Plan is being based, it has to be realised that changes in many of them are bound to occur during a period of five years. Changes will take place in world market conditions, making them more or less favourable than forecast. The reaction of the private sector to Government policies in various fields may also be quite different from what was expected. The physical implementation of Government projects may take more time than scheduled, and thereby influence the rate of growth. The basic growth potential of the economy may in fact turn out to be more or less favourable than originally estimated when more detailed information becomes available.

20.2 It must therefore be recognised that this five-year Plan for social and economic development is not meant to be a fixed 'blue print' which ought to be rigidly implemented under any conditions. Rather, this five-year Plan can best be described as 'indicative'; it is a guide as to how economic and social conditions should develop in broad terms over the next several years and a programme by which the Government seeks to influence this development.

20.3 Obviously, Government policies in general and the level and distribution of various current and capital expenditures in particular will have to be modified if events turn out differently from those forecast in the Plan, in order to achieve the maximum economic growth consistent with the Government's aims as far as growth, employment and income distribution are concerned. It is therefore essential that provision be made for a follow-up and modification of the Plan, not only in the execution of various projects, but also in the implementation of policies and broad programmes. Only by a close follow-up of the Plan, accompanied by continuous review and possible modification of Government policies, can one hope to achieve a satisfactory growth in economic and social development during the entire planning period.

Plan Follow-Up

20.4 A basic prerequisite for an effective follow-up of a development programme is a central body to which information on actual progress can be referred and which is able to give directives for action whenever actual events fall short of the planned targets and objectives. Such a body was established in 1968 in the Development Committee, comprising those Ministers whose portfolios are closely related to economic and social development, and chaired by the Prime Minister. This committee is assisted by a Development Sub-Committee composed of senior civil servants, chaired by the Secretary for Finance. Both committees are serviced by the Central Planning Office, in the Ministry of Finance.

20.5 The second prerequisite is the provision of information on actual implementation and evaluation of the various policies, programmes and projects of the Plan from the several executing Ministries, departments and agencies and the presentation of this information in such form and at such intervals as to enable the Development Committees to take effective action. Aside from an annual review of the state of project implementation at the time of budget formulation, no effective system of periodic reporting to the Development Committees was in force during DPV. Published annual reports of the various departments presented a factual picture of progress, but did not generally serve as a means of comparing accomplishments with Plan objectives. Moreover, these reports were subject to substantial delay, so that they were of limited use for Plan implementation. There was also less regular review of development policies during DPV than would have been desirable.

20.6 Although there were still some important gaps in the basic knowledge about the economy at the time of the preparation of DPVI, the foundation on which the Plan is based had improved substantially over DPV. Hence it has been possible to state the objectives of the Plan and the policies, programmes and projects to achieve these objectives much more explicitly. The new Plan therefore lends itself to a closer follow-up; but it also puts a greater burden on the administration in furnishing the rather broad stream of information on how the various aspects of the Plan are being implemented.

20.7 The information required in order to compare progress with departmental targets can be divided into the following broad categories :

(i) physical implementation of projects (buildings, roads, ports etc.);

(ii) implementation of programmes (coconut, forestry plantation, agricultural marketing programme, housing programme etc.);

(iii) evaluation of the actual effect of various projects, programmes and policies on the several sectors, as compared with what was originally envisaged;

(iv) total output, output by sector, employment, income distribution, wages and prices, foreign trade, Government finance, social services, investment, consumption etc. as compared with overall targets of the Plan.

20.8 The frequency and detail in which this information needs to be provided will be geared to the practical needs of effective Plan implementation. In view of the time and work required by report-making, these should of course be limited to those really necessary. Nevertheless, if Plan implementation is to be reasonably successful, the flow of information on various aspects of the economic and social situation must be improved substantially over that available in the past. As a minimum, progress as compared with Plan targets on physical implementation of Plan projects should be reported quarterly. In view of a prospective very tight labour market in the building and construction industry it is of great importance to follow these projects closely to identify problems at an early stage and to take action to break bottlenecks. Information on implementation of broader programmes [points (ii) and (iv)] should be given once a year. Evaluation of various sectoral programmes and policies should take place whenever a suitable period has elapsed after initiation of a new policy. In fact the evaluation of existing policies and the formulation of new policies must be a constant process if the Plan is to attain its basic objectives.

20.9 The time of preparation of the annual capital budget will be the occasion for a review of Plan progress, especially as far as public expenditure projects are concerned. Such a review will be most effective if it is made on the basis of an overall assessment of the state of the economy. During the DPVI period the Central Planning Office, in co-operation with the Bureau of Statistics, will endeavour to prepare, by about August of each year, a full review of the progress of the economy during the previous calendar year and a rough estimate of trends during the current year. This should make the annual formulation of the budget a more meaningful exercise from the standpoint of Plan implementation. It will also permit the Government to publish an annual economic review.

Administrative Structure for Implementation

20.10 The reporting and evaluation procedures suggested will necessitate reorganisation of the present planning and project control arrangements in the various Ministries and departments as well as some strengthening of staff, especially at the professional and technical level.[1] Because of increasing requirements for statistical information the need for strengthening the Bureau of Statistics will be particularly urgent. The work of the Bureau and the Central Planning Office must be even more closely integrated than in the past. There will also be a need for strengthening or establishing sectoral planning and research units in the principal Ministries (Natural Resources, Communications, Works and Tourism, and Commerce and Industry) in order to permit continuous evaluation of on-going and new programmes and policies.

Co-ordination and Co-operation

20.11 An essential part of successful Plan implementation is close co-ordination and co-operation not only between various Ministries and departments but also between Government and local authorities and between the public and private sectors. Without close co-operation and co-ordination many of the projects and programmes are likely either to be only partly implemented or even if they are fully implemented, their effect is likely to fall short of expected targets. At the central Government level co-operation between departments has improved over the years but there is still a need for closer co-operation on such projects as roads, harbours and jetties for inter-island shipping which concern a number of departments (transport, agriculture, forestry, tourism, manufacturing). Obviously, close co-ordination is required between the housing and industrial estates authorities and those departments and agencies responsible for water supply, sewerage, electricity and telecommunications. The need for better co-ordination to intensify training activities is especially urgent.

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[1] This will undoubtedly involve drawing on foreign expertise wherever appropriate personnel are not available in Fiji.

20.12 Permanent committees consisting of senior civil servants and representatives from the private sector will help to achieve co-ordination in these and similar fields. The staff of the Central Planning Office, serving as the secretariat of the Development Committee, will be the focus of activities for co-ordinating Plan implementation. It will also stimulate review of development policies from time to time, and in co-operation with the appropriate Ministries and departments, prepare papers bringing policy matters to the Development Committee for decision.

20.13 As far as co-ordination between the central and local authorities is concerned the establishment of the new District and Divisional Development Committees composed of members from the Advisory and Provincial councils in 1970 has substantially strengthened the machinery for such co-ordination. Although the committees' primary functions are to promote self-help schemes, to associate people in the rural areas with district development plans and to provide a framework for joint efforts for improving conditions in general, they will also, in conjunction with the parallel district and divisional teams of field officers, provide a means for practical co-ordination between national and local authorities on the implementation of the Plan at the district level.

20.14 Co-ordination and co-operation with the private sector in formulating and implementing development policies have so far taken place only on an *ad hoc* basis. As the success of a development plan in a free enterprise economy such as that of Fiji largely depends on the favourable reaction of the private sector, it seems essential to formalise co-operation with this sector on a regular basis. This may be done by establishing a national planning and development advisory council composed of members from private industry, agriculture, commerce, organised labour and other private interests, under the aegis of the Central Planning Office. This council should meet at least twice a year, and much more often at the time of the formulation of the next Plan.

Communication

20.15 Understanding of the basic objectives of a development plan and active participation of those involved in executing the plan are essential to a successful implementation. This does not apply merely to central and local Governments and civil servants, but to entrepreneurs and the private sector as a whole. A reciprocal flow of information and analysis on planning and implementation between various Ministries and departments, between central and local governments and between the public and private sectors is necessary to make a useful whole of the Plan.

20.16 The appropriate means of communication will vary according to needs. Useful focal points are the national and divisional operations rooms which were established in the last two years of DPV. There, information on various aspects of the Development Plan is presented by means of charts, maps, and other 'visual aids' which are intended to show in physical terms or in money terms what the Plan aims to achieve, and the state of progress to date.

20.17 The operations room will mainly serve committees, councils and advisory groups concerned with national and local planning activities in their discussions and orientation. As a means of keeping the broader public informed on development policies and objectives it may be advisable to prepare an annual booklet containing a selection of the main charts, maps, etc. of the operations room with a short text explaining the main issues. This could also be merged with the annual economic review mentioned earlier. Lastly, care will be taken to keep neighbouring countries and territories informed about development policies and projects. Similarities in economic conditions and problems make a co-ordination and co-operation in many respects both desirable and fruitful. A mutual flow of information about policies and projects, both on a general level as well as in specific fields, will be of considerable value to all countries in the Pacific Region.

APPENDICES

APPENDIX A. THE PUBLIC EXPENDITURE PROGRAMME

Table A.1 : Summary of DPVI Capital Expenditure Programme

($ thousand)

	1971	1972	1973	1974	1975	Total
Administration						
Office of the Prime Minister	25.0	—	—	120.0	630.0	775.0
Fiji Military Forces	120.0	36.0	31.0	31.0	31.0	249.0
Labour Department	62.0	—	—	—	—	62.0
Police	559.0	158.0	78.0	28.0	28.0	851.0
Printing	11.3	4.5	109.7	215.5	123.5	464.5
Central Archives	—	—	3.0	—	14.5	17.5
Customs and Excise	8.0	25.0	20.0	—	—	53.0
Government Offices and Quarters	79.0	129.0	279.0	479.0	279.0	1,245.0
Judicial	188.5	—	—	96.0	—	284.5
Total, Administration	1,052.8	352.5	520.7	969.5	1,106.0	4,001.5
Social Services						
Education	1,224.0	1,077.0	1,697.0	2,134.0	1,836.0	7,968.0
Medical	2,295.0	3,250.0	2,650.0	510.0	390.0	9,095.0
Prisons	299.5	91.1	30.5	118.6	30.6	570.3
Social Development and Welfare	17.2	—	103.0	156.6	4.0	280.8
Total, Social Services	3,835.7	4,418.1	4,480.5	2,919.2	2,260.6	17,914.1
Community Services						
Sewerage	450.0	465.0	355.0	395.0	355.0	2,020.0
Water Supplies	775.0	870.0	770.0	570.0	575.0	3,560.0
Housing	300.0	300.0	300.0	400.0	500.0	1,800.0
Rural Development	200.0	200.0	200.0	200.0	200.0	1,000.0
Total, Community Services	1,725.0	1,835.0	1,625.0	1,565.0	1,630.0	8,380.0
Economic Services						
Agriculture	1,607.0	1,460.1	1,485.0	1,598.9	1,460.0	7,611.0
Fisheries	163.7	137.3	50.8	111.8	112.8	576.4
Forestry	333.1	211.6	239.3	130.4	102.1	1,016.5
Geological Surveys	150.3	114.5	82.0	60.1	61.9	468.8
Lands, Mines and Surveys	232.0	232.0	242.0	252.0	252.0	1,210.0
Commerce, Industry and Co-operatives	350.7	408.8	422.0	536.0	489.2	2,206.7
Tourist Development	180.0	177.0	179.0	181.0	183.0	900.0
Total, Economic Services	3,016.8	2,741.3	2,700.1	2,870.2	2,661.0	13,989.4
Infrastructure						
Public Works Department	1,946.5	3,400.0	4,615.0	4,500.0	4,410.0	18,871.5
Transport and Civil Aviation	777.7	902.9	406.9	102.9	182.9	2,373.3
Posts and Telegraphs	1,060.5	1,135.5	1,233.0	1,206.0	1,092.0	5,727.0
Marine	473.9	418.5	360.1	602.5	468.5	2,323.5
Total, Infrastructure	4,258.6	5,856.9	6,615.0	6,411.4	6,153.4	29,295.3
Miscellaneous						
High Commission, Canberra	150.0	—	—	—	—	150.0
Government Shares in Fiji Airways	—	500.0	—	—	—	500.0
Unallocated Reserve	350.0	100.0	100.0	100.0	100.0	750.0
Total, Miscellaneous	500.0	600.0	100.0	100.0	100.0	1,400.0
GRAND TOTAL	14,388.9	15,804.3	16,041.3	14,835.3	13,911.0	74,980.8

Table A.2 : Composition of DPVI Public Expenditure Programme

($ thousand)

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
	ADMINISTRATION						
	Office of the Prime Minister						
(1)	Parliament Building	—	—	—	120.0	630.0	750.0
(2)	Rotuma Council House	25.0	—	—	—	—	25.0
	Total	25.0	—	—	120.0	630.0	775.0
	Fiji Military Forces						
(1)	Maisonettes	20.0	20.0	20.0	20.0	20.0	100.0
(2)	Grade IV Quarters	11.0	11.0	11.0	11.0	11.0	55.0
(3)	Other Buildings	85.0	5.0	—	—	—	90.0
(4)	Equipment	4.0	—	—	—	—	4.0
	Total	120.0	36.0	31.0	31.0	31.0	249.0
	Labour						
(1)	Trade Testing Centre	62.0	—	—	—	—	62.0
	Police						
(1)	Labasa Headquarters	60.0	—	—	—	—	60.0
(2)	Training School	196.0	—	—	—	—	196.0
(3)	Nadi Headquarters	25.0	—	—	—	—	25.0
(4)	Suva Headquarters	—	50.0	50.0	—	—	100.0
(5)	Quarters	—	20.0	20.0	20.0	20.0	80.0
(6)	Routine Requirements	4.0	4.0	4.0	4.0	4.0	20.0
(7)	Mobile Force Camp	270.0	80.0	—	—	—	350.0
(8)	Vehicles and Equipment	4.0	4.0	4.0	4.0	4.0	20.0
	Total	559.0	158.0	78.0	28.0	28.0	851.0
	Printing and Stationery						
(1)	New Government Press	—	—	100.0	200.0	100.0	400.0
(2)	Technical Equipment	11.3	4.5	9.7	15.5	23.5	64.5
	Total	11.3	4.5	109.7	215.5	123.5	464.5
	Central Archives						
(1)	Conversion of Printing Office	—	—	—	—	14.5	14.5
(2)	Microfilm Equipment	—	—	3.0	—	—	3.0
	Total	—	—	3.0	—	14.5	17.5
	Customs and Excise						
(1)	Extension to Collector's Office	—	5.0	—	—	—	5.0
(2)	Quarters, Nadi Airport	8.0	20.0	20.0	—	—	48.0
	Total	8.0	25.0	20.0	—	—	53.0
	Ministry of Communications, Works and Tourism						
(1)	Official Quarters	—	50.0	50.0	50.0	50.0	200.0
(2)	Office Block, Suva	—	—	200.0	400.0	200.0	800.0
(3)	Temporary Office Accommodation	50.0	50.0	—	—	—	100.0
(4)	Rented Quarters Furniture	29.0	29.0	29.0	29.0	29.0	145.0
	Total	79.0	129.0	279.0	479.0	279.0	1,245.0
	Judicial						
(1)	New Lautoka Courts	172.5	—	—	—	—	172.5
(2)	New Nadi Courthouse	—	—	—	96.0	—	96.0
(3)	Supreme Court, Airconditioning	16.0	—	—	—	—	16.0
	Total	188.5	—	—	96.0	—	284.5
	TOTAL, ADMINISTRATION	1,052.8	352.5	520.7	969.5	1,106.0	4,001.5

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
	SOCIAL SERVICES						
	Education						
(1)	Teachers' Centres (one in Suva)	—	—	40.0	—	—	40.0
(2)	Lautoka Teachers' College	—	—	500.0	750.0	—	1,250.0
(3)	Nasinu Teachers' College	375.0	80.0	—	—	—	455.0
(4)	Derrick Technical Institute, Phase III	—	—	250.0	250.0	—	500.0
(5)	School of Hotel and Catering Services	100.0	—	—	—	—	100.0
(6)	School of Maritime Studies	—	—	—	100.0	100.0	200.0
(7)	RKS Main School Block	—	110.0	—	—	—	110.0
(8)	RKS Farm Buildings, etc.	—	—	15.0	20.0	20.0	55.0
(9)	Centre of Technical Education	—	—	160.0	—	—	160.0
(10)	Demonstration Junior Secondary School	—	200.0	—	—	—	200.0
(11)	Nasinu Secondary School	—	—	—	150.0	550.0	700.0
(12)	Adi Cakobau School, Rebuilding	110.0	110.0	122.0	67.0	—	409.0
(13)	Labasa Secondary School, 5th and 6th Form Facilities	—	—	—	—	30.0	30.0
(14)	Labasa Secondary School Hostel	—	—	—	—	100.0	100.0
(15)	Levuka Public School	—	—	—	—	50.0	50.0
(16)	Natabua High School	—	—	—	—	30.0	50.0
(17)	Suva Grammar School	—	—	—	—	50.0	50.0
(18)	Queen Victoria School	10.0	—	—	—	—	10.0
(19)	Suva Primary School	—	—	—	140.0	—	140.0
(20)	Veiuto Primary School	80.0	—	—	—	—	80.0
(21)	Demonstration School for Lautoka Teachers' College	—	—	—	—	75.0	75.0
(22)	Improvements to 18 other Primary Schools	7.0	20.0	20.0	30.0	30.0	107.0
(23)	Routine Requirements	20.0	20.0	21.0	22.0	23.0	106.0
(24)	Staff Quarters	—	20.0	30.0	40.0	50.0	140.0
(25)	Building Grants, Primary	125.0	105.0	105.0	105.0	110.0	550.0
(26)	Building Grants, Secondary	310.0	320.0	330.0	350.0	500.0	1,810.0
(27)	Hostel Grants	10.0	15.0	20.0	25.0	30.0	100.0
(28)	RKS, Self-building Scheme	20.0	20.0	20.0	20.0	20.0	100.0
(29)	Vehicles	—	—	—	8.0	6.0	14.0
(30)	Educational Equipment	5.0	5.0	5.0	5.0	5.0	25.0
(31)	Science and Technical Equipment	30.0	30.0	45.0	50.0	55.0	210.0
(32)	Basic Science Equipment for Forms I and II	20.0	20.0	12.0	—	—	52.0
(33)	Office Equipment	2.0	2.0	2.0	2.0	2.0	10.0
	Total	1,224.0	1,077.0	1,697.0	2,134.0	1,836.0	7,968.0
	Medical						
(1)	Lautoka Hospital	1,750.0	2,500.0	1,750.0	—	—	6,000.0
(2)	Lautoka Hospital, Equipment	200.0	400.0	400.0	—	—	1,000.0
(3)	Labasa Hospital	200.0	200.0	250.0	—	—	650.0
	Colonial War Memorial Hospital						
(4)	Maternity Block	—	100.0	200.0	350.0	—	650.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
(5)	New Nursing School	—	—	—	100.0	330.0	430.0
Small Maternity Units and Rural Hospitals							
(6)	Navua and Korovou	10.0	—	—	—	—	10.0
(7)	Health Centre, Urban	—	—	—	—	40.0	40.0
(8)	Rural Health and Nursing Centre	93.0	30.0	30.0	40.0	—	193.0
(9)	Routine Requirements	6.0	10.0	10.0	10.0	10.0	46.0
(10)	Extension of Government Pharmacy	26.0	—	—	—	—	26.0
(11)	Vehicles and Mobile Clinics	10.0	10.0	10.0	10.0	10.0	50.0
	Total	2,295.0	3,250.0	2,650.0	510.0	390.0	9,095.0
Prisons							
(1)	Security Prison, Naboro	172.0	—	—	—	—	172.0
(2)	Staff Quarters, Naboro	78.4	33.8	—	—	—	112.2
(3)	Administration Centre, Naboro	2.8	—	—	—	—	2.8
(4)	Workshops, Naboro	—	22.5	—	—	—	22.5
(5)	Remand Block, Lautoka	—	12.5	—	—	—	12.5
(6)	Security Punishment Block, Lautoka	—	—	3.0	—	—	3.0
(7)	Workshops, Lautoka	—	7.5	—	—	—	7.5
(8)	Conversion of Approved School, Nasinu	—	—	—	20.0	—	20.0
(9)	Kitchen Extensions, Nasinu	—	—	—	12.0	—	12.0
(10)	Dormitory for 20, Nasinu	—	—	—	18.0	20.0	38.0
(11)	Staff Quarters, Borstal Nasinu	—	—	—	59.9	—	59.9
(12)	Dormitory for 24, Labasa	—	—	22.5	—	—	22.5
(13)	Medical Centre	—	10.0	—	—	—	10.0
(14)	Primary School	20.0	—	—	—	—	20.0
(15)	Siteworks for all Building, Works	26.3	4.8	5.0	5.7	7.8	49.6
(16)	Vehicles	—	—	—	3.0	2.8	5.8
	Total	299.5	91.1	30.5	118.6	30.6	570.3
Social Development and Welfare							
(1)	Approved School Building	—	—	100.0	156.6	—	256.6
(2)	Improvement of Old People's Home	15.0	—	—	—	—	15.0
(3)	Vehicles	2.2	—	3.0	—	4.0	9.2
	Total	17.2	—	103.0	156.6	4.0	280.8
TOTAL, SOCIAL SERVICES		3,835.7	4,418.1	4,480.5	2,919.2	2,260.6	17,914.1
COMMUNITY SERVICES							
Sewerage							
(1)	Greater Suva Area, Backlog Needs	110.0	290.0	120.0	80.0	80.0	680.0
(2)	Greater Suva Area, Growth Needs	260.0	75.0	75.0	75.0	75.0	560.0
(3)	Lautoka	50.0	50.0	80.0	80.0	50.0	310.0
(4)	Nadi	30.0	50.0	50.0	40.0	40.0	210.0
(5)	Ba	—	—	30.0	70.0	30.0	130.0
(6)	Labasa	—	—	—	50.0	50.0	100.0
(7)	Nausori	—	—	—	—	30.0	30.0
	Total	450.0	465.0	355.0	395.0	355.0	2,020.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
Water Supplies							
(1)	Development of Sigatoka Supply including construction of 250,000 gal, reservoir	25.0	—	—	—	—	25.0
(2)	Stage II Labasa Water Supply Development	100.0	100.0	—	—	20.0	220.0
(3)	5 Miles 8" Main Rewa Distribution Areas	—	—	—	—	25.0	25.0
(4)	Major Development of Lautoka Water Supply	100.0	200.0	200.0	—	—	500.0
(5)	Major Distribution Development and Storage Capacity Suva including 500,000 gal. reservoirs Banawai Road and Nasinu	80.0	80.0	80.0	80.0	80.0	400.0
(6)	Additional Storage and Office Extension Water Supply Depot Suva	20.0	—	—	—	—	20.0
(7)	Development of new source at Savusavu and Construction of 250,000 gal. reservoir	—	50.0	50.0	—	—	100.0
(8)	Improvement to Government and Institutional Supplies	10.0	10.0	10.0	10.0	10.0	50.0
(9)	Village Supplies	100.0	100.0	100.0	100.0	100.0	500.0
(10)	Hydrological Surveys	40.0	40.0	40.0	40.0	40.0	200.0
(11)	Improvement to Installations and Plants	5.0	5.0	5.0	5.0	5.0	25.0
(12)	New Economic Extension Reticulation of new S. Depot and new connections	200.0	190.0	190.0	190.0	200.0	970.0
(13)	Settlement Supplies	75.0	75.0	75.0	75.0	75.0	375.0
(14)	School Water and Sanitation Scheme	20.0	20.0	20.0	20.0	20.0	100.0
(15)	Korovou	—	—	—	50.0	—	50.0
	Total	775.0	870.0	770.0	570.0	575.0	3,560.0
Housing		300.0	300.0	300.0	400.0	500.0	1,800.0
Rural Development		200.0	200.0	200.0	200.0	200.0	1,000.0
TOTAL, COMMUNITY SERVICES		1,725.0	1,835.0	1,625.0	1,565.0	1,630.0	8,380.0
ECONOMIC SERVICES							
Agriculture							
Research Services, Dry Zone Station							
(1)	Building	53.8	—	—	—	—	53.8
(2)	Vehicle	3.0	—	—	—	—	3.0
(3)	Equipment	2.0	—	—	—	—	2.0
Coconut Research Station							
(4)	Building	—	65.8	46.2	—	7.0	119.0
(5)	Vehicles and 1 DA tractor	—	23.8	0.3	2.7	—	26.8
(6)	Equipment	—	11.0	—	0.9	0.1	12.0
(7)	Land and Siteworks	150.0	—	—	—	—	150.0
Re-organisation of Koronivia Research Station							
(8)	Building	—	—	105.0	65.0	—	170.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
(9)	Equipment	—	—	45.6	—	—	45.6
	Development of Research Stations						
(10)	Sites and Facilities	10.9	5.5	8.0	—	—	24.4
(11)	Land Purchase	—	—	—	45.0	—	45.0
(12)	Equipment	9.5	6.5	13.0	11.5	12.5	53.0
(13)	Fiji School of Agriculture	—	—	—	94.0	100.0	194.0
(14)	Quarters	22.2	—	—	—	—	22.2
(15)	Pathology Laboratory	7.5	—	—	—	—	7.5
(16)	Animal House, Garages	2.1	—	—	—	—	2.1
	Agricultural Training Services						
(17)	Farmer Training	15.0	20.0	20.0	20.0	20.0	95.0
(18)	In-Service Training	—	—	1.0	2.2	2.2	5.4
	Extension Services						
(19)	Buildings	21.0	66.0	61.5	135.0	35.0	318.5
(20)	Vehicles	8.0	10.4	10.4	9.6	9.6	48.0
(21)	Equipment	46.0	24.0	24.0	10.0	10.0	114.0
	Crop Husbandry Services Subsidies						
(22)	Fertiliser, Weedicides, etc.	172.0	232.4	307.2	382.6	455.4	1,549.6
(23)	Cocoa	5.0	5.0	6.0	6.0	6.0	28.0
(24)	Coconut	237.8	227.5	194.3	182.1	159.9	1,001.6
(25)	Livestock (wire and steel post)	67.2	68.9	68.9	69.8	69.8	344.6
	Veterinary Services						
(26)	Buildings	—	20.0	30.0	40.0	50.0	140.0
(27)	Vehicles	7.0	3.3	3.8	2.5	2.5	19.1
	Irrigation Schemes						
(28)	Purchase of Equipment and Plant	300.0	—	—	—	—	300.0
	Construction Costs						
(29)	— Navua	280.5	300.0	169.8	150.0	150.0	1,050.3
(30)	— Rewa	106.5	300.0	300.0	300.0	300.0	1,306.5
(31)	— Northern Division and Elsewhere	60.0	60.0	60.0	60.0	60.0	300.0
(32)	Minor Works	10.0	10.0	10.0	10.0	10.0	50.0
(33)	FAO/UNDP Rewa Project Counterpart Contribution	10.0	—	—	—	—	10.0
	Total	1,607.0	1,460.1	1,485.0	1,598.9	1,460.0	7,611.0

Fisheries

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
(1)	District Office Buildings	—	12.4	8.0	—	—	20.4
	Small Unit Fisheries						
(2)	Silos	6.0	—	—	—	—	6.0
(3)	Ice Machine, etc.	20.0	—	—	—	—	20.0
(4)	Fish Market	5.0	—	—	—	—	5.0
	Tuna						
(5)	Vessel	80.0	—	—	—	—	80.0
(6)	UNDP Support	27.0	27.4	10.0	—	—	64.4
(7)	Cold Storage	—	—	—	75.0	75.0	150.0
	Prawns						
(8)	Vessels	—	42.0	—	—	—	42.0
(9)	Equipment etc.	—	5.0	—	—	—	5.0
	Oyster						
(10)	Equipment	15.0	26.3	28.1	26.1	35.1	130.6
(11)	Shore Facilities	—	4.8	2.4	2.4	2.4	12.0
	Fish Breeding Station						
(12)	Equipment	4.1	3.1	2.0	—	—	9.2
	Crown of Thorns						
(13)	Equipment	3.0	0.25	0.25	0.25	0.25	4.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
	Conservation Enforcement						
(14)	Vehicles	3.6	—	—	—	—	3.6
(15)	Vessels	—	16.0	—	8.0	—	24.0
	Total	163.7	137.3	50.8	111.8	112.8	576.3
	Forestry						
(1)	Timber Research Station	46.0	—	—	—	—	46.0
	Territorial Divisions (including afforestation)						
	Buildings						
(2)	— Southern	4.0	6.7	14.5	3.2	3.2	31.6
(3)	— Western	24.6	18.0	21.1	9.1	2.5	75.3
(4)	— Northern	6.5	5.4	30.0	30.0	4.4	76.3
	Vehicles						
(5)	— Southern	7.1	6.0	3.25	7.25	2.75	26.5
(6)	— Western	6.8	6.7	5.5	1.5	5.6	26.1
(7)	— Northern	5.4	5.0	24.5	—	2.75	37.7
	Equipment						
(8)	— Southern	1.3	1.0	20.6	1.0	1.0	24.9
(9)	— Western	8.0	6.0	2.2	2.2	2.4	20.8
(10)	— Northern	0.5	0.6	17.5	1.0	1.0	20.6
	Extension Forestry						
(11)	Buildings	5.0	6.7	2.5	2.5	2.5	19.2
(12)	Vehicles	—	2.5	—	2.7	—	5.2
(13)	Equipment	2.0	—	2.0	—	—	4.0
	Management						
(14)	Buildings	—	2.2	—	—	—	2.2
(15)	Vehicles	5.2	1.5	—	—	—	6.7
(16)	Equipment	2.0	3.5	0.5	0.5	0.5	7.0
	Silvicultural Research						
(17)	Vehicles	3.0	3.0	—	2.5	—	8.5
(18)	Equipment	3.0	1.0	1.0	1.0	1.0	7.0
	Timber Utilisation						
(19)	Buildings	18.2	13.6	—	—	—	31.8
(20)	Vehicles	12.9	—	2.4	1.2	3.8	20.3
(21)	Equipment	7.8	14.8	1.0	1.2	1.1	25.9
	Training						
(22)	Buildings	4.3	2.2	—	—	—	6.5
(23)	Vehicles	2.7	—	2.75	—	4.0	9.5
(24)	Equipment	2.5	0.5	0.5	0.5	0.5	4.5
	Road Unit						
(25)	Buildings	11.0	11.0	—	—	—	22.0
(26)	Vehicles	65.3	30.0	20.0	—	—	115.3
(27)	Equipment	15.4	—	—	2.0	—	17.4
(28)	Roads	60.0	60.0	60.0	60.0	60.0	300.0
	Administration and Revenue (including Dept. Garage)						
(29)	Buildings	—	—	1.0	—	—	1.0
(30)	Vehicles	2.6	2.7	6.4	—	3.0	14.7
(31)	Equipment	—	1.0	—	1.0	—	2.0
	Total	333.1	211.6	239.3	130.4	102.1	1,016.5
	Geological Surveys						
(1)	Several Buildings	—	—	—	15.0	20.0	35.0
(2)	Instrument and Equipment	29.5	19.3	17.5	19.3	21.7	107.2
(3)	Drilling Equipment	51.0	63.0	44.0	5.0	6.0	169.0
(4)	Other Equipment	5.0	5.3	5.8	6.0	6.3	28.4
(5)	Vehicles	14.5	11.5	9.3	9.3	2.4	47.0
	Aerial Surveys						
(6)	Air Photograph and Infra-Red Survey	0.3	15.4	5.4	5.5	5.5	32.1
(7)	Sea-Bed Investigations	50.0	—	—	—	—	50.0
	Total	150.3	114.5	82.0	60.1	61.9	468.7

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
Lands							
(1)	Additional Office Accommodation	—	—	10.0	20.0	20.0	50.0
(2)	Vehicles and Equipment	30.0	30.0	30.0	30.0	30.0	150.0
Land Development							
(3)	Purchase of Land	2.0	2.0	2.0	2.0	2.0	10.0
Development of Crown Land							
(4)	Crown Estate	100.0	100.0	100.0	100.0	100.0	500.0
(5)	Reclamation	100.0	100.0	100.0	100.0	100.0	500.0
	Total	232.0	232.0	242.0	252.0	252.0	1,210.0
Ministry of Commerce, Industry and Co-operatives							
(1)	Lami Educational Centre, Co-operatives	—	—	—	70.0	—	70.0
Marketing Division							
(2)	Marketing Warehouses	—	25.0	25.0	25.0	25.0	100.0
(3)	Equipment	50.0	75.0	100.0	100.0	125.0	450.0
Weights and Measures Division							
(4)	Vehicles	2.8	2.8	3.0	3.0	3.2	14.8
(5)	Equipment	10.0	20.0	8.0	—	—	38.0
Industrial Promotion Division							
(6)	Vehicles and Equipment	1.9	—	—	2.0	—	3.9
Industrial Land Development							
(7)	Suva Area	150.0	150.0	150.0	100.0	100.0	650.0
(8)	Other Areas	100.0	100.0	100.0	200.0	200.0	700.0
Co-operatives							
(9)	Furniture	1.0	1.0	1.0	1.0	1.0	5.0
(10)	Financial Grants to Regional Societies	35.0	35.0	35.0	35.0	35.0	175.0
	Total	350.7	408.8	422.0	536.0	489.2	2,206.7
Tourist Development							
(1)	Hotel Aids (token)	10.0	15.0	15.0	15.0	15.0	70.0
(2)	Resort Infrastructure Developments	160.0	150.0	150.0	150.0	150.0	760.0
(3)	Development of beaches, car parks, scenic views and other natural attractions	10.0	12.0	14.0	16.0	18.0	70.0
	Total	180.0	177.0	179.0	181.0	183.0	900.0
TOTAL, ECONOMIC SERVICES		3,016.8	2,741.3	2,700.1	2,870.2	2,661.0	13,989.4
INFRASTRUCTURE							
Public Works Department							
(1)	New Depots and Improvements to Depots	80.0	70.0	—	—	—	150.0
(2)	New Plumber Shop, Labasa Depot	—	—	10.0	—	—	10.0
(3)	Island Sub-Depots	—	—	—	20.0	25.0	45.0
(4)	Routine Requirements	1.5	5.0	5.0	5.0	10.0	26.5
Heavy Construction							
(5)	Miscellaneous drainage works	4.0	4.0	4.0	4.0	4.0	20.0
(6)	Siteworks, Government Stations	2.0	2.0	2.0	2.0	2.0	10.0
Road Improvement							
(7)	Bridges and Culverts Reconstruction	50.0	50.0	50.0	50.0	50.0	250.0
(8)	Upgrading Rural Roads	56.0	56.0	56.0	56.0	56.0	280.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
(9)	Capital Road Grants to Local Authorities	90.0	90.0	90.0	90.0	90.0	450.0
(10)	Bitumenising Villages and Settlements	24.0	24.0	24.0	24.0	24.0	120.0
(11)	Bitumen sealing of Government Stations and Housing Areas	2.0	2.0	2.0	2.0	2.0	10.0
(12)	Traffic Signs	20.0	—	—	—	—	20.0
(13)	Plant and Equipment	100.0	100.0	100.0	100.0	100.0	500.0
Routine Electricity Requirements Requirements							
(14)	Reticulation and Wiring of Government Buildings	2.0	2.0	2.0	2.0	2.0	10.0
Reconstruction and Bitumen Sealing of Highways							
(15)	Tavua-Vatukoula (if CD&W Grant)	420.0	—	—	—	—	420.0
New Rural Development Roading							
(16)	New Rural Roading	195.0	195.0	195.0	195.0	195.0	975.0
Vanua Levu Transinsular Road							
(17)	Survey and Construction	300.0	300.0	300.0	100.0	—	1,000.0
Savusavu West Road							
(18)	Survey and Construction	—	—	75.0	150.0	150.0	375.0
Suva-Nadi Road							
(19)	Survey-Supervision and Construction	500.0	2,400.0	3,600.0	3,600.0	3,600.0	13,700.0
Suva Roading							
(20)	Road Improvements, Suva and Lami	70.0	70.0	70.0	70.0	70.0	350.0
Land Acquisition							
(21)	Compensation Payments	30.0	30.0	30.0	30.0	30.0	150.0
	Total	1,946.5	3,400.0	4,615.0	4,500.0	4,410.0	18,871.5
Transport and Civil Aviation							
(1)	Transport Division Headquarters	—	—	—	—	120.0	120.0
(2)	New Nausori Runway	750.0	750.0	200.0	—	—	1,700.0
(3)	Extension to Air Terminal	—	—	—	40.0	—	40.0
(4)	Quarters, offices, etc.	9.8	—	—	—	—	9.8
	Extension	—	—	200.0	—	—	200.0
(5)	Savusavu Runway						
(6)	Acquisition of land (Savusavu)	—	—	4.0	—	—	4.0
(7)	Labasa Runway Extension	—	150.0	—	—	—	150.0
(8)	Matei Extension	—	—	—	60.0	—	60.0
(9)	Bureta Improvement and Land Purchase	15.0	—	—	—	—	15.0
(10)	Lakeba New Airstrip	—	—	—	—	60.0	60.0
(11)	Routine Requirements	2.9	2.9	2.9	2.9	2.9	14.5
	Total	777.7	902.9	406.9	102.9	182.9	2,373.3
Posts and Telegraphs							
(1)	VHF Microwave Radio Stations	26.0	—	57.0	17.5	17.5	118.0
(2)	Deuba Post Office and Telephone Exchange	—	25.0	—	—	—	25.0
(3)	Nasinu Post Office and Telephone Exchange	—	35.0	—	—	—	35.0
New Post Offices							
(4)	Sigatoka	—	—	20.0	—	—	20.0
(5)	Kabara	—	—	—	15.0	—	15.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
(6)	Nabouwalu	—	—	—	15.0	—	15.0
(7)	Tavua	30.0	—	—	—	—	30.0
(8)	Alterations to existing General Post Office	—	20.0	—	—	—	20.0
(9)	Other Buildings	10.0	10.0	10.0	10.0	10.0	50.0
(10)	Lautoka Workshop	—	—	20.0	—	—	20.0
(11)	Labasa Telephone Exchange	—	—	—	70.0	—	70.0
(12)	New Central Building, Suva	—	—	—	—	150.0	150.0
Telephone Exchange Equipment							
	New automatic exchanges to replace existing manual exchanges expected to reach the limit of working capacity and which could not be extended or replaced except at considerable expense (involving building extension in some cases).						
(13)	Labasa, 1,000 lines	—	—	—	79.0	136.0	215.0
(14)	Navua, 200 lines	—	23.5	19.5	2.0	—	45.0
(15)	Rakiraki, 400 lines	11.5	22.5	1.0	—	—	35.0
(16)	Tavua, 400 lines	60.0	39.5	4.5	—	—	104.0
	New automatic telephone exchanges to cater for development at Deuba and between Suva and Nausori.						
(17)	Deuba, 200 lines	—	27.5	20.5	2.0	—	50.0
(18)	Nasinu, 650 lines	—	38.0	11.0	—	—	49.0
	Extension to automatic telephone exchanges.						
(19)	Lami, 400 lines	—	—	—	61.0	57.0	118.0
(20)	Lautoka, 1,000 lines	—	72.0	51.0	—	—	123.0
(21)	Lautoka trunk exchange	—	—	10.0	15.0	—	25.0
(22)	Nadi, 300 lines	—	7.5	2.5	—	—	10.0
(23)	Samabula, 1,800 lines	160.0	26.0	—	—	—	186.0
(24)	Suva, 1,000 lines	—	—	69.0	100.0	—	169.0
(25)	Suva Trunk Exchange	—	—	50.0	62.0	—	112.0
	Other Exchange Works						
(26)	Higher Traffic Capacity Exchange	89.0	20.0	—	—	—	109.0
	New international telephone exchange switchboard to interwork with proposed 'gateway' automatic exchange to be provided by C. & W. Ltd. at Compac cable terminal to secure more efficient utilisation of international telephone circuits available to Fiji.						
(27)	Suva	—	50.0	80.0	—	—	130.0
(28)	Minor Exchanges, New and Extensions	10.0	15.0	10.0	10.0	15.0	60.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
	Subscribers' Network Equipment						
(29)	Consisting of underground cables, overhead lines, subscribers' apparatus	304.0	305.0	315.0	352.0	391.0	1,667.0
Trunk System							
	The main projects for developing the telecommunication trunk system to meet anticipated traffic levels are:						
(30)	Suva-Sigatoka Microwave	10.0	230.0	133.0	—	—	373.0
(31)	Southridge, Delaikoro	—	—	120.0	113.0	10.0	243.0
(32)	Delaikoro, Savusavu/Taveuni	31.0	—	—	7.5	8.0	46.5
(33)	Minor Extensions and Redeployment	90.0	30.0	15.0	15.0	27.5	177.5
(34)	Junction Cables	—	—	60.0	40.0	—	100.0
Telegraph and Telex Services							
(35)	Telex exchange and installation	50.0	—	—	—	—	50.0
(36)	Trunk Circuits	20.0	5.0	10.0	11.0	15.0	61.0
(37)	Teleprinter and miscellaneous associated equipment	15.0	20.0	15.0	20.0	20.0	90.0
Radio Communications							
(38)	Lau VHF Scheme including Radiophones and Power	15.0	5.0	15.0	60.0	91.0	186.0
(39)	Radiophone Service Expansion	15.0	10.0	10.0	20.0	25.0	80.0
(40)	Replacement of 13 Provincial and provision of 17 new stations	30.0	30.0	30.0	30.0	30.0	150.0
(41)	Exclusive links to Pacific Islands, expansion and improvement	40.0	25.0	30.0	35.0	45.0	175.0
Tools and Test Equipment							
(42)	Mechanical Aids, Special Tools, Test Equipment	15.0	15.0	15.0	15.0	15.0	75.0
(43)	Vehicles	15.0	15.0	15.0	15.0	15.0	75.0
(44)	Office Equipment	4.0	4.0	4.0	4.0	4.0	20.0
(45)	Outer Islands and Rural Areas Radio Telephone Stations	10.0	10.0	10.0	10.0	10.0	50.0
	Total	1,060.5	1,135.5	1,233.0	1,206.0	1,092.0	5,727.0
Marine							
Wharves, Jetties and Wharf Facilities							
(1)	Inter-island Wharf	—	—	—	60.0	—	60.0
(2)	New Cargo Shed, King's Wharf, Suva	—	—	65.0	—	—	65.0
(3)	Local Shipping Wharf, Suva	—	—	—	300.0	320.0	620.0
(4)	Hard Standing and Reclamation (King's Wharf, Suva)	—	15.0	—	—	—	15.0
(5)	New Sheds (Queen's Wharf, Lautoka)	8.0	40.0	—	—	—	48.0
(6)	New Shed (King's Wharf, Lautoka)	16.0	—	—	—	—	16.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
(7)	King's and Queen's Wharves, Lautoka	—	—	—	40.0	—	40.0
(8)	Cruise Vessel Berthage, Lautoka	10.0	—	—	—	—	10.0
(9)	Wailoaloa Jetty, Nadi Bay	20.0	20.0	—	—	—	40.0
(10)	Savusavu (Wharf and Reclamation)	—	25.0	25.0	5.0	4.0	59.0
(11)	Outer Island Jetties	50.0	50.0	50.0	50.0	50.0	250.0
(12)	Rotuma Wharf	—	30.0	30.0	—	—	60.0
(13)	'Vuniwai' class administration vessel to free 'Kapaiwai' to replace 'Makogai'	25.0	85.0	—	—	—	110.0
(14)	'Cagimaira' 52′ class medical vessel for Lomaloma	44.0	—	—	—	—	44.0
(15)	'Cagimaira' 52′ class education vessel to replace 'Tui Taveuni'	—	—	—	—	44.0	44.0
(16)	Two 'V' Class medical launches	26.0	—	—	—	—	26.0
(17)	Two ferro concrete flat-top barges, one for Suva, one for Lautoka, to replace wooden barges	13.0	—	—	—	—	13.0
(18)	Conversion of 80′ lighter 'Dau Kelikeli' to beacon and buoy-laying (including pile frame)	40.0	—	—	—	—	40.0
(19)	Improved 'Duiyabaki' class landing craft	—	—	80.0	60.0	—	140.0
(20)	New 80′ lighter for use as dredge pontoon and grab dredging equipment	65.0	—	—	—	—	65.0
(21)	2 x 80 feet steel hopper for working with dredger	—	—	50.0	—	—	50.0
(22)	Education vessels (three) (Cagi-mai-Ra type 55′ — six passengers, one of these $44,000; two 36′ vessels—four passengers, each $13,000)	—	—	13.0	44.0	13.0	70.0
(23)	Quarantine Buoy, Levuka	2.0	—	—	—	—	2.0
(24)	Government Shipyard, improvements and extension	100.0	100.0	—	—	—	200.0
(25)	Hydrographic Survey	4.0	5.0	—	—	—	9.0
(26)	Subsidies	20.0	20.0	20.0	20.0	20.0	100.0
Vehicles and Ships Equipment Replacement							
(27)	1 x 6 ton truck for shipyard, launch re-engining; deep freezer	2.4	—	3.6	—	—	6.0
Radio Equipment							
(28)	For re-equipping Government Fleet	5.0	5.0	6.0	6.0	6.0	28.0

Item	Details of Expenditure	1971	1972	1973	1974	1975	Total
	Navigational Aids						
(29)	New Lighthouses	12.0	12.0	6.0	6.0	—	36.0
(30)	Beacons	1.5	1.5	1.5	1.5	1.5	7.5
(31)	Reef Blasting	10.0	10.0	10.0	10.0	10.0	50.0
	Total	473.9	418.5	360.1	602.5	468.5	2,323.5
	TOTAL, INFRASTRUCTURE	4,258.6	5,856.9	6,615.0	6,411.4	6,153.4	29,295.3
	MISCELLANEOUS						
(1)	High Commission, Canberra	150.0	—	—	—	—	150.0
(2)	Fiji Airways Ltd.	—	500.0	—	—	—	500.0
(3)	Unallocated Reserve	350.0	100.0	100.0	100.0	100.0	750.0
	TOTAL, MISCELLANEOUS	500.0	600.0	100.0	100.0	100.0	1,400.0

Table A.3 : DPVI, Reserve Projects

($ thousand)

ADMINISTRATION		
Office of the Chief Minister		
(1)	Administration Training Centre	100.0
(2)	Hostel	76.0
		176.0
Fiji Military Forces		
(1)	Quarters Programme	99.0
(2)	Wireless Equipment	90.0
		189.0
Police		
(1)	Lami Police Station	33.6
(2)	Vitogo Police Post	25.4
(3)	Lakeba Police Post	21.0
		80.0
Supplies Department		
(1)	Main Suva Depot	600.0
Judicial		
(1)	Suva Magistrates' Courts	380.0
(2)	Nausori Courts	80.0
		460.0
TOTAL, ADMINISTRATION		1,505.0
SOCIAL SERVICES		
Education		
(1)	Teachers' Centres	40.0
(2)	Nasinu Secondary School	100.0
		140.0
Medical		
(1)	Nadi Ward Blocks	150.0
(2)	Urban Health Centres	80.0
(3)	Levuka Hospital	200.0
		430.0
Prisons		
(1)	Dormitory for 40 — Lautoka	55.0
(2)	Staff Quarters, Labasa	26.5
(3)	Staff Quarters, Lautoka	46.5
(4)	Administration Centre — Naboro	27.5
(5)	Training School — Naboro	30.0
(6)	Remand Home for teenage girls	20.0
		205.5

Social Development and Welfare

(1) Improvements of Old People's Homes	25.0
TOTAL, SOCIAL SERVICES	800.5

ECONOMIC SERVICES

Agriculture

(1) Reorganisation of Koronivia	55.0
(2) Fishermen Training School	70.0
	125.5

Ministry of Commerce and Industries

(1) Industrial Land Development	500.0
TOTAL, ECONOMIC SERVICES	625.0

COMMUNITY SERVICES

Sewerage

(1) Lautoka	70.0
(2) Nadi	60.0
(3) Ba	20.0
(4) Labasa	40.0
(5) Sigatoka	25.0
(6) Institutions	75.0
(7) Nausori	70.0
(8) Levuka	20.0
	380.0

Water Supplies

(1) Two miles six-inch Main Nadi/Votualevu	15.0
(2) Development of Sigatoka Supply	25.0
(3) Major Development of Lautoka Supply	100.0
(4) Major Development of distribution and Storage Capacity, Suva	100.0
(5) New Economic extension and reticulation of new S/Depot	180.0
	420.0
TOTAL, COMMUNITY SERVICES	800.0

INFRASTRUCTURE

Public Works Department

(1) Island Sub-Depots	25.0
(2) Lautoka — Nadi Highway	800.0
	825.0

Posts and Telegraphs

(1) VHF Microwave Radio Stations	18.0
(2) Vunisea Post Office	15.0
(3) Workshop Training School	225.0
	258.0
TOTAL, INFRASTRUCTURE	1,083.0

SUMMARY OF RESERVE PROJECTS

	Buildings	Non-Building	Total
Administration	1,415.0	90.0	1,505.0
Social Services	750.5	50.0	800.5
Community Services	—	800.0	800.0
Economic Services	125.0	500.0	625.0
Infrastructure	283.0	800.0	1,083.0
GRAND TOTAL	2,573.5	2,240.0	4,813.5

Table A.4 : Summary of DPVI Building Programme

($ thousand)

	1971	1972	1973	1974	1975	Total
Administration	1,004.5	315.0	475.0	921.0	1,049.5	3,765.0
Social Services	3,078.7	3,451.1	3,527.5	2,341.2	1,515.8	13,914.3
Economic Services	152.6	189.2	285.7	464.0	257.0	1,348.5
Infrastructure	181.3	205.0	187.0	252.5	332.5	1,158.3
Community Services	—	5.0	5.0	5.0	5.0	20.0
GRAND TOTAL	4,417.1	4,165.3	4,480.2	3,983.7	3,159.8	20,206.1

APPENDIX B. SOURCES OF PUBLIC INVESTMENT FUNDS

Table B.1 : Public Investment Funds, by Source, 1971-75

($ million, 1970 prices)

	1971	1972	1973	1974	1975	Total
Borrowing						
Local Borrowing	4.00	4.50	5.00	5.50	6.10	25.10
Less — Redemption Costs	0.81	1.24	0.12	1.34	0.84	4.35
Net Funds from Local Borrowing	3.19	3.26	4.88	4.16	5.26	20.75
IBRD	—	2.00	2.50	2.50	2.50	9.50
Other External Borrowing	6.70	5.79	3.41	4.43	2.40	22.73
Total, Borrowing	9.89	11.05	10.79	11.09	10.16	52.98
Other Sources						
Revenue	1.00	2.00	3.00	3.00	3.50	12.50
Grant Aid	2.50	2.50	2.00	0.50	—	7.50
Miscellaneous and Reserves	1.00	0.25	0.25	0.25	0.25	2.00
Total, Other Sources	4.50	4.75	5.25	3.75	3.75	22.00
GRAND TOTAL	14.39	15.80	16.04	14.84	13.91	74.98
of which from :						
— domestic sources	5.19	5.51	8.13	7.41	9.01	35.25
— external sources	9.20	10.29	7.91	7.43	4.90	39.73

Note : See also Table 3.7

APPENDIX C. THE MACROECONOMIC FRAMEWORK

Table C.1 : Gross Domestic Product, by Economic Sector, 1965-70

($ million, 1965 prices)

	1965	1966	1967	1968	1969[1]	1970[1]	Per cent per annum 1965/70	Per cent per annum 1966/70
Agriculture, Forestry and Fishing	40.6	41.1	41.4	44.2	46.3	45.5	2.3	2.6
— cash	(24.1)	(24.0)	(23.7)	(25.8)	(27.3)	(25.9)	1.5	1.9
— rural households	(16.5)	(17.1)	(17.7)	(18.4)	(19.0)	(19.6)	3.5	3.5
Mining and Quarrying	2.2	2.2	2.3	2.1	2.0	2.0	–1.9	–2.4
Manufacturing and Processing	14.9	12.5	19.4	20.3	14.6	19.2	5.2	11.3
Building and Construction	6.5	6.6	8.6	10.5	11.1	11.9	12.8	15.9
Electricity and Water	1.5	1.6	1.6	1.7	1.8	2.0	5.9	5.8
Transport and Communications	6.8	7.6	9.1	9.7	11.1	11.9	11.8	11.9
Commerce	21.2	20.2	21.9	22.7	24.0	24.1	2.6	4.5
Tourism	2.0	2.4	2.7	3.3	4.0	5.0	20.2	20.2
Government Services[2]	8.5	9.3	10.0	10.0	10.4	11.1	5.5	4.5
Other Services[3] (n.e.s.)	16.9	19.2	20.8	23.1	24.1	23.8	7.1	5.5
Gross Domestic Product (at factor cost)	121.0	122.7	137.8	147.6	149.4	156.5	5.3	6.3

Note : Totals may not add due to rounding.

1 — estimated.

2 — includes I.S.I.C. (Rev.) 91 Public Administration; 92 Education; 933 Health. Hence, includes contributions by private educational and health services.

3 — includes I.S.I.C. (Rev.) 9 Real Estate, etc.: 99 Rural household services (including Domestic Services). Excludes value added in hotels and boarding houses (included in Tourism).

Table C.2 : Gross Domestic Product, by Economic Sector, and National Income, 1965-70

($ million, current prices)

	1965	1966	1967	1968	1969 1	1970 1	Per cent per annum 1965/70	1966/70
Agriculture, Forestry and Fishing	40.6	40.0	39.9	44.2	46.4	48.4	3.6	4.9
— cash	(24.1)	(22.9)	(22.2)	(25.8)	(27.4)	(28.8)	(3.6)	(5.9)
— rural households	(16.5)	(17.1)	(17.7)	(18.4)	(19.0)	(19.6)	(3.5)	(3.5)
Mining and Quarrying	2.2	2.0	2.4	2.4	2.5	2.5	2.6	5.7
Manufacturing and Processing	14.9	15.0	16.6	17.6	18.8	19.3	5.3	6.5
Building and Construction	6.5	7.4	9.6	12.0	13.2	15.0	18.2	19.3
Electricity and Water	1.5	1.6	1.5	1.7	1.8	2.0	5.9	5.8
Transport and Communications	6.8	8.0	9.6	11.0	13.0	15.0	17.1	17.0
Commerce	21.2	20.5	22.0	23.6	26.0	28.0	5.7	8.1
Tourism	2.0	2.4	2.8	3.4	4.4	6.0	24.6	25.7
Government Services	8.5	9.4	10.2	10.6	11.6	12.9	8.7	8.2
Other Services (n.e.s.)	16.9	19.2	21.0	23.4	25.9	28.5	11.0	10.4
Gross Domestic Product (at factor cost)	121.0	125.7	135.5	149.9	163.6	177.6	8.0	9.0
***less* Net Income Paid Abroad**	–5.2	–3.3	–5.2	–6.0	–6.5	–7.1		
Gross National Product (at factor cost)	115.8	122.4	130.3	143.9	157.1	170.5	8.0	8.6
***less* Capital Consumption**	–8.7	–9.1	–9.5	–10.0	–10.8	–11.8		
National Income	107.1	113.3	120.8	133.9	146.3	158.7	8.2	8.8

Note: Totals may not add due to rounding.
1 — estimated.

Table C.3: Gross Domestic Product, by Expenditure, 1965-70

($ million, 1965 prices)

	1965	1966	1967	1968	1969[1]	1970[1]	Per cent per annum 1965/70	Per cent per annum 1966/70
Consumers Expenditure	81.1	77.6	80.5	83.7	86.7	91.0	2.3	4.1
Rural Household Consumption	14.8	15.3	15.7	16.2	16.8	17.6	3.5	3.5
Government Current Expenditure	15.7	17.0	17.8	18.1	18.9	20.2	5.2	4.4
Gross Fixed Capital Formation	27.6	23.1	29.6	41.1	43.3	48.1	11.7	20.1
— private	(19.7)	(13.8)	(21.5)	(29.9)	(31.3)	(35.0)	(12.2)	(26.2)
— public	(7.9)	(9.3)	(8.1)	(11.2)	(12.0)	(13.1)	(10.6)	(8.9)
Net change in stocks	+2.1	+6.0	+1.8	+0.5	+1.3	+1.6		
Total Domestic Expenditure (at market prices)	141.3	139.0	145.5	159.5	167.0	178.6	4.8	6.5
Exports of Goods and Services	54.5	50.0	62.1	71.1	73.6	78.5	7.6	11.9
Imports of Goods and Services	–63.2	–56.0	–58.6	–69.2	–77.0	–85.8	6.3	11.3
Net Trade[2] of Goods and Services	– 8.7	– 6.0	+3.5	+1.9	– 3.4	– 7.3		
Statistical Discrepancy	+0.5	+0.4	+1.9	—	—	—		
Gross Domestic Product (at market prices)	133.1	133.4	150.9	161.4	163.6	171.3	5.2	6.4
less Indirect Taxes	–13.0	–11.7	–13.8	–14.4	–14.8	–15.3	3.4	6.9
plus Subsidies	0.9	1.0	0.8	0.7	0.6	0.6		
Gross Domestic Product (at factor cost)	121.0	122.7	137.9	147.6	149.4	156.5	5.3	6.3

Note: Totals may not add due to rounding.

1 — estimated.

2 — net imports (–), net exports (+).

Table C.4 : National Income, by Expenditure, 1965-70

($ million, current prices)

	1965	1966	1967	1968	1969 1	1970 1	Per cent per annum 1965/70	Per cent per annum 1966/70
Consumers Expenditure	81.1	78.1	82.3	88.5	96.4	105.3	5.4	7.8
Rural Household Consumption	14.8	15.3	15.7	16.2	16.8	17.6	3.5	3.5
Government Current Expenditure	15.7	17.2	18.5	19.4	21.3	23.6	8.5	8.2
Gross Fixed Capital Formation	27.6	24.3	31.7	44.6	48.3	55.2	14.9	22.7
— private	(19.7)	(14.8)	(23.3)	(33.0)	(35.3)	(40.4)	(15.4)	(28.5)
— public	(7.9)	(9.5)	(8.3)	(11.7)	(13.0)	(14.8)	(13.4)	(11.7)
Net change in stocks	+2.1	+6.1	+1.9	+0.5	+1.5	+1.9		
Total Domestic Expenditure (at market prices)	141.3	141.0	150.1	169.3	184.3	203.6	7.6	9.6
Exports of Goods and Services	54.5	52.4	58.7	70.3	80.4	88.3	10.1	13.9
less Imports of Goods and Services	–63.2	–57.2	–61.7	–75.0	–85.2	–97.1	9.0	14.1
Net Trade 2 of Goods and Services	– 8.7	– 4.8	– 3.0	– 4.7	– 4.8	– 8.8		
Statistical discrepancy	+0.5	+0.4	+1.9	—	—	—		
Gross Domestic Product (at market prices)	133.1	136.6	149.0	164.6	179.5	194.8	7.9	9.3
less Net Income paid abroad	– 5.2	– 3.3	– 5.2	– 6.0	– 6.5	– 7.1		
Gross National Product (at market prices)	127.9	133.3	143.8	158.6	173.0	187.7	8.0	8.9
less Indirect Taxes	–13.0	–11.9	–14.3	–15.4	–16.6	–17.9	6.6	10.7
plus Subsidies	0.9	1.0	0.8	0.7	0.7	0.7		
Gross National Product (at factor cost)	115.8	122.4	130.3	143.9	157.1	170.5	8.0	8.6
less Capital Consumption	– 8.7	– 9.1	– 9.5	–10.0	–10.8	–11.8	6.3	6.7
National Income	107.1	113.3	120.8	133.9	146.3	158.7	8.2	8.8

Note: Total may not add due to rounding.
1 — estimated.
2 — net imports (–), net exports (+).

Table C.5: National Income, by Type of Income, 1965-70

($ million, current prices)

	1965	1966	1967	1968	1969[1]	1970[1]	Per cent share 1965	Per cent share 1970
Wages and Salaries	41.5	43.2	48.5	55.0	61.0	66.8	34.2	37.6
Income from unincorporated enterprise	47.4	48.6	50.0	53.1	56.4	60.6	39.2	34.1
— private business and estates	(29.3)	(29.8)	(30.6)	(33.0)	(35.6)	(39.1)	(24.2)	(22.0)
— rural households	(18.1)	(18.8)	(19.4)	(20.1)	(20.8)	(21.5)	(15.0)	(12.1)
Gross Operating Profits	19.9	20.0	21.5	24.1	26.6	28.5	16.5	16.0
— companies	(18.0)	(17.9)	(19.5)	(21.5)	(23.8)	(25.5)	(14.9)	(14.4)
— savings of public enterprise	(1.9)	(2.1)	(2.0)	(2.6)	(2.8)	(3.0)	(1.6)	(1.7)
Government Income from property	3.1	3.3	3.7	4.2	4.6	5.2	2.6	2.9
Personal Income from property	9.1	10.6	11.9	13.5	15.0	16.5	7.5	9.3
— rents	(0.7)	(0.8)	(1.5)	(2.0)	(2.4)	(2.8)	(0.6)	(1.6)
— income from home ownership	(8.4)	(9.8)	(10.4)	(11.5)	(12.6)	(13.7)	(6.9)	(7.7)
Gross Domestic Product (at factor cost)	121.0	125.7	135.5	149.9	163.6	177.6	100.0	100.0
less Net Income paid abroad	– 5.2	– 3.3	– 5.2	– 6.0	– 6.5	– 7.1		
Gross National Product (at factor cost)	115.8	122.4	130.3	143.9	157.1	170.5		
less Capital Consumption	– 8.7	– 9.1	– 9.5	–10.0	–10.8	–11.8		
National Income	107.1	113.3	120.8	133.9	146.3	158.7		

Note: Totals may not add due to rounding

1 — estimated

Table C.6 : Balance of Payments, Goods and Services, 1965-70

($ million, current prices)

	1965	1966	1967	1968	1969	1970[1]
Receipts						
(a) Exports f.o.b.	35.1	31.7	34.9	39.9	43.8	45.1
(c) Non-monetary gold	3.1	3.0	3.1	3.5	3.4	3.2
(d) Freight and Insurance	0.9	1.0	0.9	0.9	1.0	1.0
(e) Other Transportation	6.0	5.8	6.4	8.3	8.9	9.5
(f) Foreign Travel	7.5	8.6	11.1	15.6	20.9	26.7
(g) Investment Income	1.4	1.7	1.1	1.5	1.5	1.6
(h) Government Services	1.2	1.2	0.9	1.0	1.1	1.2
(i) Other Services (n.e.s.)	0.7	1.0	1.3	1.1	1.3	1.6
Total	55.9	54.0	59.7	71.8	81.9	89.9
Payments						
(b) Imports f.o.b.	47.2	39.7	45.7	55.4	63.1	72.1
(d) Freight and Insurance	10.3	9.8	9.9	12.3	13.9	15.8
(e) Other Transportation	3.0	3.3	3.0	4.0	4.4	4.9
(f) Foreign Travel	1.1	2.2	1.4	1.6	1.7	1.8
(g) Investment Income	6.6	5.0	6.3	7.5	8.0	8.7
(h) Government Services	0.3	0.3	0.4	0.4	0.5	0.6
(i) Other Services (n.e.s.)	1.4	1.8	1.4	1.3	1.6	1.9
Total	69.9	62.1	68.1	82.5	93.2	105.8

1 — estimated.

Table C.7 : Balance of Payments, Combined Receipts and Payments (Net), 1965-70

($ million, current prices)

	1965	1966	1967	1968	1969	1970[1]
Commodity Trade Balance[2]	9.0	–5.0	–7.7	–12.0	–15.9	–23.8
Goods and Services Balance	–14.0	–8.1	–8.4	–10.7	–11.3	–15.9
Private Capital Inflow[3]	7.0	3.5	5.7	6.6	6.6	11.4
Public Capital Inflow	7.0	4.6	2.7	4.1	4.7	4.5
Total Capital Inflow	14.0	8.1	8.4	10.7	11.3	15.9
Commodity Trade Balance[4]	–19.3	–14.8	–17.6	–24.3	–29.8	–39.6
Net Income Paid Abroad[5]	– 5.2	– 3.3	– 5.2	– 6.0	– 6.5	– 7.1

Note : Net inflow (+), net outflow (–).

1 — estimated.

2 — calculated on f.o.b. basis. Table C.6 : (a)+(c)–(b).

3 — the capital inflow is the sum of transfer payments and changes in capital movements.

4 — calculated on c.i.f. basis for imports. Table C.6 : (a)+(c)–(b)–(d).

5 — Net Income paid abroad is net investment income paid overseas. Table C.6 net value of item (g).

Table C.8 : Gross National Product, by Economic Sector, and National Income

($ million, 1970 prices)

	1970	1971	1972	1973	1974	1975	Growth Rat (% p.a.)
Agriculture, Forestry and Fishing	48.4	50.1	51.8	53.7	55.6	57.7	3.5
— cash sector	28.8	30.1	31.4	32.9	34.3	35.9	4.5
— rural households	19.6	20.0	20.4	20.8	21.3	21.8	2.1
Mining and Quarrying	2.5	2.6	2.6	2.7	2.8	2.8	2.4
Manufacturing and Processing	19.3	20.2	21.1	22.0	23.0	24.0	4.5
Building and Construction	15.0	16.4	17.8	19.4	21.2	23.1	9.0
Electricity and Water	2.0	2.2	2.3	2.5	2.7	2.9	8.0
Transport and Communications	15.0	16.2	17.4	18.8	20.2	21.7	7.7
Commerce	28.0	29.9	32.0	34.2	36.6	39.1	6.9
Tourism	6.0	7.2	8.7	10.4	12.5	15.0	20.2
Government Services	12.9	14.0	15.2	16.4	17.8	19.3	8.4
Other Services	28.5	30.5	32.6	34.9	37.4	40.0	7.0
Gross Domestic Product (at factor cost)	177.6	189.1	201.4	215.0	229.8	245.6	6.7
less Net Income paid abroad	–7.1	–7.4	–7.7	–9.2	–10.0	–11.1	9.3
Gross National Product (at factor cost)	170.5	181.7	193.7	205.8	219.8	234.5	6.6
less Capital Consumption	–11.8	–12.9	–14.0	–15.4	–16.8	–18.4	9.2
National Income	158.7	168.8	179.7	190.4	203.0	216.1	6.4

Notes : (1) Values for 1971-75 inclusive are derived by extrapolation of the 197 forecast figure using the projected growth rates shown.

(2) Totals may not add due to rounding.

Table C.9 : National Income, by Expenditure, 1970 and 1975

($ million, 1970 prices)

	1970	1975	Growth Ra (% p.a.)
Total Private Consumption	122.9	163.4	5.9
— consumers expenditure	(105.3)	(143.5)	(6.4)
— rural household consumption	(17.6)	(19.9)	(2.5)
Government Current Expenditure	23.6	36.3	9.0
Gross Fixed Capital Formation	55.2	82.6	8.4
— private	(40.4)	(58.5)	(7.7)
— public	(14.8)	(24.1)	(10.2)
Net change in stocks	+1.9	+2.0	
Total Domestic Expenditure (at market prices)	203.6	284.3	6.9
Exports of Goods and Services	88.3	157.8	12.3
less Imports of Goods and Services	–97.1	–168.9	11.7
Net Trade [1] of Goods and Services	– 8.8	– 11.1	
Gross Domestic Product (at market prices)	194.8	273.2	7.0
less Net Income paid abroad	– 7.1	–11.1	
Gross National Product (at market prices)	187.7	262.1	6.9
less Indirect Taxes	–17.9	–28.6	9.8
plus Subsidies	+0.7	+1.0	
Gross National Product (at factor cost)	170.5	234.5	6.6
less Capital Consumption	–11.8	–18.4	9.2
National Income	158.7	216.1	6.4

1 — net imports (–), net exports (+).

Table C.10 : National Income, by Type of Income, 1970 and 1975

($ million, 1970 prices)

	1970	1975
Wages and Salaries	66.8	94.8
Income from unincorporated enterprise	60.6	79.0
— private business and estates	(39.1)	(55.0)
— rural households	(21.5)	(24.0)
Gross Operating profits	28.5	41.3
— companies	(25.5)	(36.9)
— savings of public enterprise	(3.0)	(4.4)
Government Income from property	5.2	6.8
Personal Income from property	16.5	23.7
— rents	(2.8)	(4.1)
— income from home ownership	(13.7)	(19.6)
Gross Domestic Product (at factor cost)	177.6	245.6
less Net Income paid abroad	− 7.1	−11.1
Gross National Product (at factor cost)	170.5	234.5
less Capital Consumption	−11.8	−18.4
National Income	158.7	216.1

Note : Totals may not add due to rounding.

Table C.11 : Balance of Payments, Goods and Services, 1970-75

($ million, 1970 prices)

	1970	1971	1972	1973	1974	1975	Growth Rate (% p.a.)
Receipts							
(a) Exports f.o.b.	45.1	46.4	47.8	49.2	50.6	52.1	2.9
(c) Non-Monetary Gold	3.2	3.2	3.2	3.2	3.2	3.2	—
(d) Freight and Insurance	1.0	1.0	1.0	1.1	1.1	1.1	1.9
(e) Other Transportation	9.5	10.4	11.3	12.3	13.4	14.6	9.0
(f) Foreign Travel	26.7	33.5	41.9	52.5	65.8	82.5	25.3
(g) Investment Income	1.6	1.6	1.6	1.7	1.7	1.7	1.2
(h) Government Services	1.2	1.3	1.4	1.5	1.7	1.8	8.5
(i) Other Services (n.e.s.)	1.6	1.7	1.9	2.1	2.3	2.5	9.3
Total	89.9	99.1	110.1	123.6	139.8	159.5	12.2
Payments							
(b) Imports f.o.b.	72.1	80.8	90.4	101.3	113.4	126.9	12.0
(d) Freight and Insurance	15.8	17.7	19.8	22.1	24.8	27.7	11.9
(e) Other Transportation	4.9	5.3	5.7	6.2	6.7	7.3	8.3
(f) Foreign Travel	1.8	2.0	2.2	2.3	2.5	2.8	9.2
(g) Investment Income	8.7	9.4	10.1	11.0	11.8	12.8	8.0
(h) Government Services	0.6	0.7	0.8	0.9	1.1	1.2	14.9
(i) Other Services (n.e.s.)	1.9	2.1	2.3	2.5	2.7	3.0	9.6
Total	105.8	118.0	131.3	146.3	163.0	181.7	11.4

Note : Values for 1971-75 inclusive are derived by extrapolation of the 1970 forecast figure, using the projected growth rates shown.

Table C.12 : Balance of Payments, Combined Receipts and Payments (Net)

($ million, 1970 prices)	1970	1975
Commodity Trade Balance [1]	–23.8	–71.6
Goods and Services Balance	–15.9	–22.2
Private Capital Inflow [2]	11.4	10.8
Public Capital Inflow	4.5	11.4
Total Capital Inflow	15.9	22.2
Commodity Trade Balance [3]	–39.6	–99.3
Net Income Paid Abroad [4]	– 7.1	–11.1

Note : Net inflow (+), net outflow (–).

1 — calculated on f.o.b. basis. Table C.11 : (a)+(c)–(b).

2 — the capital inflow is the sum of transfer payments and changes in capita movements.

3 — calculated on c.i.f. basis for imports. Table C.11 : (a)+(c)–(b)–(d).

4 — net income paid abroad is net investment income paid overseas. Table C 11 net value of item (g).

Table C.13 : Savings and Investment, DPV and DPVI

($ million)	DPV [1]	DPVI [2]
Central Government GFCF	38.7	75.0
Local Government, Government Enterprise and Statutory Boards GFCF	18.6	25.0
Private GFCF	146.8	253.8
Increase in Stocks	11.9	10.0
Total GFCF and Stocks	216.0	363.8
Public Capital Inflow	20.6	47.3
Private Capital Inflow	33.8	50.3
Total Capital Inflow	54.4	97.6
Share of Capital Inflow in Total Investment	25.2%	26.8

Note : Price basis for DPV and DPVI columns are different.

1 — current prices; 2 — 1970 prices.

APPENDIX D

BASIC DATA, POPULATION AND MANPOWER

This appendix records in detail some of the main assumptions used in making the projections of population growth, labour force growth and the estimates of manpower demand and supply, which appear in Chapter 4.

Population Projections

2. Table D.1 shows the assumed fertility rates which form the basis for the high and low projections, and the associated changes in average family size. Table D.2 shows the year by year population by sex from 1969 to 1985. Table D.3 shows the associated changes in the birth, death and natural increase rates. Table D.4 shows the year by year number of births associated with the low and high projections. It also shows the number of births that would occur if the 1969 fertility rates remain unchanged; these estimates provide the basis for setting the family planning target. Table D.5 shows the projected age structure of the population.

Labour Force Estimates

3. These estimates are based on the changing age structure of the population, shown in Table D.5, and on assumptions about changing rates of participation. The assumed participation ratios for 1970-1985 are shown in Tables D.6 and D.7, along with the actual ratios derived from the 1966 Census of Population.

Manpower Projections

4. Table D.8 shows the assumed rates of growth of value added and output per man-year. From these the 1985 level of employment was derived. Table D.9 shows the assumptions made about the 1985 occupational structure. This assumed structure for 1985 was applied to total employment. With assumptions about replacement, shown in Table D.10, the demand for new entrants into each occupation was calculated. The results are shown in Table 4.7. These demands were then turned into training requirements on the basis of the assumptions shown in Table D.11. Table D.12 matches the training requirement with the estimates of supply.

Table D.1 : End-Year Fertility Rates and Family Size, 1969-85

	Fertility Rate [1]		Average Family Size[2]	
Year	Low	High	Low	High
1969 [3]	133.95		3.80	
1970	131.35	131.35	3.73	3.73
1975	114.83	122.82	3.26	3.49
1980	100.67	116.22	2.86	3.30
1985	94.00	110.00	2.67	3.12

1 — births per 1000 women aged 15-44.
2 — average number of children per woman.
3 — actual.

Table D.2 : Projected End-Year Population, 1969-85

(thousand)

Year	Male		Female		Total	
	Low	High	Low	High	Low	High
1969 [1]	261.29		252.43		513.72	
1970	267	267	258	258	525	525
1971	273	273	264	264	538	538
1972	279	279	271	271	550	551
1973	286	286	277	278	563	564
1974	292	293	284	284	576	578
1975	298	300	290	291	589	592
1976	305	307	296	298	602	606
1977	311	314	303	306	614	620
1978	317	321	309	313	627	635
1979	324	329	316	321	640	650
1980	330	336	322	328	653	665
1981	337	344	329	336	666	680
1982	343	351	335	344	678	696
1983	349	359	341	351	691	711
1984	356	367	348	359	704	726
1985	362	375	354	367	716	742

1 — actual.

Table D.3 : Projected Birth, Death and Natural Increase Rates, 1969-85

(per thousand of end-year population)

Year	Birth Rate		Death Rate		Natural Increase Rate	
	Low	High	Low	High	Low	High
1969 [1]	29.27		4.69		24.58	
1970	29.16	29.16	5.53	5.53	23.63	23.63
1971	28.65	29.17	5.50	5.51	23.15	23.66
1972	28.59	29.10	5.48	5.50	23.11	23.60
1973	28.38	29.03	5.46	5.48	22.92	23.55
1974	27.75	28.96	5.44	5.46	22.31	23.50
1975	27.15	28.90	5.43	5.44	21.72	23.46
1976	26.73	28.83	5.48	5.50	21.25	23.33
1977	26.34	28.77	5.54	5.56	20.80	23.21
1978	25.96	28.72	5.63	5.63	20.33	23.09
1979	25.60	28.66	5.67	5.69	19.93	22.97
1980	25.26	28.62	5.73	5.76	19.53	22.86
1981	24.92	28.22	5.78	5.78	19.14	22.44
1982	24.60	27.84	5.83	5.81	18.77	22.03
1983	24.29	27.47	5.87	5.84	18.42	21.63
1984	24.00	27.12	5.92	5.88	18.08	21.24
1985	23.71	26.79	5.98	5.92	17.73	20.87

1 — actual.

Table D.4 : Projected Births, 1971-85

(number)

Year	Fertility Assumption		
	Low	High	Unchanged 1969 Rates
1971	15,400	15,700	16,100
1972	15,800	16,000	16,700
1973	16,000	16,400	17,300
1974	16,000	16,700	18,000
1975	16,000	17,100	18,600
1976	16,100	17,500	19,300
1977	16,200	17,900	19,900
1978	16,300	18,300	20,600
1979	16,400	18,600	21,300
1980	16,500	19,000	22,000
1981	16,600	19,200	22,600
1982	16,700	19,400	23,100
1983	16,800	19,500	23,700
1984	16,900	19,700	24,300
1985	17,000	19,900	24,900

Table D.5 : Projected Age Structure of End-Year Population, by Sex, 1969-85

	1969 Actual		1970		1975		1980		1985	
Age Group	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0 — 4	38,080	36,300	37,660	35,740	39,310	37,570	40,470	38,680	41,710	39,860
5 — 9	40,040	39,000	40,060	38,900	37,330	35,430	38,970	37,240	40,120	38,340
10 — 14	35,570	34,600	36,360	35,420	39,910	38,720	37,190	35,270	38,820	37,070
15 — 19	29,230	28,780	30,780	29,880	36,180	35,220	39,710	38,500	37,000	35,060
20 — 24	24,070	24,000	25,000	24,890	30,130	29,640	35,890	34,930	39,390	38,190
25 — 29	19,610	19,790	20,420	20,590	24,770	24,670	29,850	29,380	35,550	34,630
30 — 34	16,160	15,850	16,770	16,590	20,210	20,400	24,510	24,510	29,540	29,110
35 — 39	13,350	12,720	13,830	13,280	16,500	16,370	19,880	20,130	24,120	24,120
40 — 44	11,080	10,360	11,440	10 770	13,520	13,040	16,140	16,070	19,440	19,760
45 — 49	9,240	8,630	9,500	8,910	11,060	10,530	13,080	12,760	15,610	15,720
50 — 54	7,670	7,020	7,850	7,260	9,040	8,620	10,520	10,190	12,440	12,350
55 — 59	5,790	5,240	6,010	5,500	7,240	6,870	8,330	8,160	9,700	9,650
60 — 64	4,060	3,720	4,260	3,950	5,240	5,020	6,320	6,280	7,270	7,450
65 — 69	2,760	2,560	2,900	2,690	3,530	3,500	4,350	4,450	5,240	5,570
70 +	4,440	3,760	4,600	4,020	4,770	4,850	5,360	6,060	6,310	7,640
Uncertain	140	110	130	100	130	100	130	100	130	100
Total Population	261,290	252,430	267,160	258,480	298,860	290,540	330,680	322,620	362,380	354,590

Notes : (1) These estimates are based on the low projections of population growth.
(2) Totals do not add due to rounding.
(3) The age structure of the population under the high projection is identical to that shown in this table, with the following exceptions :

	1975		1980		1985	
Age Group	Male	Female	Male	Female	Male	Female
0 — 4	40,730	38,920	45,330	43,320	48,220	46,710
5 — 9			40,370	38,580	44,940	42,940
10 — 14					40,220	38,400

Table D.6: Male Labour Force Participation[1] Ratios, 1966-85

(per cent of age group)

Age Group	1966[2]	1970	1975	1980	1985
15 — 19	72.6	69.7	66.7	63.1	60.0
20 — 24	95.5	95.5	95.5	95.5	95.5
25 — 29	98.2	98.2	98.2	98.2	98.2
30 — 34	98.6	98.6	98.6	98.6	98.6
35 — 39	98.5	98.5	98.5	98.5	98.5
40 — 44	98.2	98.2	98.2	98.2	98.2
45 — 49	98.2	98.2	98.2	98.2	98.2
50 — 54	96.3	96.3	96.3	96.3	96.3
55 — 59	93.7	92.1	91.0	89.5	88.0
60 — 64	87.0	85.5	83.6	81.8	80.0
65 — 69	80.4	71.2	61.1	52.4	45.0
70 +	32.1	25.1	18.5	13.6	10.0
Average	89.9	88.8	88.0	87.3	87.5

1 — participation ratio is percentage of total age group who are economically active.

2 — derived from 1966 Census of Population.

Table D.7: Female Labour Force Participation[1] Ratios, 1966-85

(per cent of age group)

Age Group	1966[2]	1970	1975	1980	1985
15 — 19	6.3	8.0	10.9	14.8	20.0
20 — 24	11.7	14.3	18.3	23.4	30.0
25 — 29	9.4	11.5	14.9	19.3	25.0
30 — 34	7.8	9.5	12.2	15.6	20.0
35 — 39	7.0	8.5	11.0	14.0	18.0
40 — 44	6.6	8.0	10.0	12.7	16.0
45 — 49	6.1	7.4	9.3	11.8	15.0
50 — 54	5.9	6.9	8.3	10.0	12.0
55 — 59	5.3	6.1	7.2	8.5	10.0
60 — 64	3.4	3.7	4.1	4.5	5.0
65 — 69	3.4	3.7	4.1	4.5	5.0
70 +	1.4	1.5	1.7	1.8	2.0
Average	7.5	9.4	11.8	15.1	19.3

1 — see Table D.6 for definition.

2 — derived from 1966 Census of Population.

Table D.8: Assumed Growth of Value Added and Output Per Man-Year, 1969-85

(per cent)

	Annual Average Growth	
	Value Added	Output per Man-Year
Agriculture, Forestry and Fishing[1]	3.4	0.8
Mining and Quarrying	2.4	1.0
Manufacturing and Processing	4.6	3.7
Building and Construction	8.9	3.3
Electricity and Water	8.1	4.5
Transport and Communications	7.6	4.0
Commerce	5.9	2.0
Tourism	15.4	1.3
Government Services	7.1	2.2
Other Services	7.3	2.2
ALL SECTORS	6.7	2.6

1 — excludes subsistence.

Table D.9 : Assumed Changes in Occupational Structure, 1969-85

(per cent of total sectoral employment)

ISCO Major Group	Occupational Title	Agri-culture, and Fishing		Mining and Quarrying		Manu-facturing and Processing		Con-struction and Building		Electricity and Water		Communi-cations and Transport		Commerce		Tourism		Govern-ment Services		Other Services	
		1969	1985	1969	1985	1969	1985	1969	1985	1969	1985	1969	1985	1969	1985	1969	1985	1969	1985	1969	1985
0 1	Professional, Technical and Related Workers	0.3	0.3	3.4	3.8	3.8	4.5	1.3	2.2	0.8	1.8	0.9	.94	2.7	4.2	1.2	1.2	47.0	44.2	10.7	13.3
2	Administrative and Managerial Workers	0.1	0.2	1.3	1.8	1.6	1.9	0.4	0.4	0.7	0.7	1.3	1.0	1.1	1.1	1.4	1.4	6.3	6.3	1.0	1.0
3	Clerical and Related Workers	0.1	0.2	4.9	6.5	6.1	5.1	5.1	4.5	9.9	12.0	7.8	8.0	21.8	15.0	9.4	9.4	21.4	20.0	3.8	3.8
4	Sales Workers	—	0.1	—	—	1.6	1.5	0.1	0.1	—	1.0	0.5	1.0	12.4	30.0	—	0.2	0.1	—	0.1	0.5
5	Service Workers	—	0.1	5.3	4.0	0.2	0.2	0.6	0.6	—	—	0.9	1.0	2.6	3.0	34.4	45.0	3.6	3.5	5.2	6.5
6/7/8/9	Agricultural, Production and Related Workers	3.9	4.6	55.5	58.2	35.9	39.5	41.4	52.1	41.0	43.2	15.8	20.9	11.4	11.2	5.7	5.5	6.1	12.5	4.7	6.5
9.9	Labourers [1]	—	—	29.5	25.5	34.6	30.5	31.1	25.2	45.0	41.5	35.1	37.2	16.0	5.5	23.8	14.5	13.1	13.5	10.7	9.0
—	Self-employed and Undefined	95.5	94.4	—	—	16.2	16.8	19.7	15.0	3.0	—	37.6	30.0	32.5	30.0	24.2	22.8	2.2	—	63.7	59.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note : All data rounded,hence totals do not add. Equally, sector shares for smaller occupation categories in 1969 may be distorted substantially from true values.

[1] — in the agriculture, forestry and fishing sector, Group 9.9 is included in Group 6/7/8/9.

Table D.10: Assumed Labour Force Replacement Rates by Economic Sector, 1969-85

(per cent)

	Annual Replacement Rate
Agriculture, Forestry and Fishing	2.0
Mining and Quarrying	1.3
Manufacturing and Processing	1.3
Building and Construction	1.4
Electricity and Water	1.9
Transport and Communications	1.7
Commerce	2.0
Tourism	1.6
Government Services	1.8
Other Services	1.8

Table D.11: Assumed Proportion of New Entrants Requiring Off-the-Job Training

(per cent of total new entrants)

Occupation	Proportion Requiring Off-the-Job Training
Professional, technical and related workers n.e.c.	75.0
Administrative and Managerial Workers	25.0
Clerical and Related Workers	70.0
Sales Workers	—
Service Workers	60.0
— miners, quarrymen, well drillers and related workers	25.0
— machinery fitters, assemblers and machine tool operators	90.0
— electrical fitters and related electrical and electronic workers	90.0
— plumbers, welders, blacksmiths, sheet and structural metal preparers and erectors	90.0
— painters and blocklayers	25.0
— carpenters and cabinetmakers	50.0
— transport and material handling equipment operators	—
— production and related workers n.e.c.	25.0
— labourers	—
All other occupations	100.0

Table D.12 : Supply and Demand Estimates for Professional, Technical and Vocational Skills, 1970-85[1]

Occupation	Training[2] Institution	Course or Qualification	Estimated Supply[3] 1970	1971	1972	1973	1974	1975	Total Supply 1970-1975		Total Demand 1970-1985
Professional, Technical and Related Workers											
— physical scientists	USP[4]	B. Sc.	—	—	2	5	7	7	21	103	150
	Overseas	B. Sc.	16	17	24	10	7	8	82		
— physical science technicians	Overseas		—	—	—	—	—	—	—	—	370
— architects and engineers	Overseas	B. Arch & B.E. (all types)	6	2	16	21	10	11	66	66	840
— architectural and engineering technicians	DTI	O.T.D.	22	36	44	46	48	50	246	258	1,900
	Overseas	Dip. (various)	2	2	2	4	1	1	12		
— life scientists	USP	B. Sc.	—	—	2	6	7	8	23	78	160
	Overseas	B. Sc.	6	9	9	11	9	11	55		
— life science technicians	FSA	Dip. Trop. Ag.	15	14	14	36	22	22	123	134	730
	Overseas	Dip. (various)	2	2	1	2	2	2	11		
— doctors, dentists, vets and pharmacists	FSM	Dip. Surg. & Med. and Dental	2	6	8	13	14	19	62	104	710
	FSA	Dip. Trop. Ag. (Vet. Sci.)	4	4	4	9	6	6	33		
	Overseas	M.B.B.S. & B. Pharm.	2	3	3	—	—	1	9		
— medical technicians	FSM	Various medical ancillary courses	15	19	22	26	23	21	126	420	1,870
	CNS	F.R.N. & N.Z.R.N. certs.	30	33	41	42	65	70	281		
	Overseas[5]	Dip. (various)	—	1	3	3	3	3	3		
— accountants	DTI	Vocational course	—	—	—	—	—	—	—	33	380
	Overseas	B. Comm. & A.R.A.N.Z.	2	6	9	6	5	5	33		
— teachers	NTC	Primary teachers cert.	108	180	150	180	90	180	888	1,205	5,200
	USP	B. Ed.	—	—	—	8	21	23	52		
	USP	Dip. Ed	—	—	25	75	80	85	265		
— professional, technical and related workers n.e.c.	USP[6]	B.A.	—	—	2	5	5	6	18	77	125[7]
	Overseas	B.A., B. Sc. (various), L.L.B., B. Com.	6	15	14	9	9	6	59		
	Overseas	Dip. (various)	2	7	6	7	7	8	37	37	63[7]

(continued on P 263.)

Occupation	Training 2 Institution	Course or Qualification	Estimated Supply 3						Total Supply 1970-1975		Total Demand 1970-1985
			1970	1971	1972	1973	1974	1975			
Administrative and Managerial Workers	USP 6	B.A.	—	—	6	13	15	16	50	225	540
	Overseas	B.A., B. Com., B. Sc. (various), L.L.B.	19	44	43	26	26	17	175		
Clerical and Related Workers 8	DTI	Secretarial cert.	50	50	50	50	50	50	300	1,896	6,590
	DTI	Typing (vocational)	100	100	100	100	100	100	600		
	DTI	Bookkeeping (vocational)	15	15	15	15	15	15	90		
	DTI	Stores and stock control (vocational)	10	10	10	10	10	10	60		
	Natabua	Secretarial courses	12	12	12	20	20	20	96		
	Independents	Secretarial courses	100	110	120	130	140	150	750		
Sales Workers 9	—	—	—	—	—	—	—	—	—	—	—
Service Workers	—	—	—	—	—	—	—	—	[illegible]	—	6,170
Production and Related Workers, Transport Equipment Operators and Labourers											
— miners, quarrymen, well drillers and related workers	DTI	—	2	6	—	—	—	—	8	8	105
— food and beverage processors 9	—	—	—	—	—	—	—	—	—	—	—
— machinery fitters, assemblers and machine tool operators	DTI	A — automotive mechanics	24	38	30	28	39	28	187	367	1,330
	DTI	A — aircraft maintenance	4	9	6	8	7	8	42		
	DTI	A — fitting and machining	30	20	16	20	29	23	138		
— electrical fitters and related electrical and electronics workers	DTI	A — electrical and refrigeration fitting	27	17	18	31	22	21	136	136	945
— plumbers, welders, blocksmiths, sheet and structural metal preparers and erectors	DTI	A — plumbing	4	5	14	6	5	7	41	176	595
	DTI	A — boilermaking welding	9	11	14	7	13	10	64		
	DTI	A — panel beating 10	3	9	5	5	10	3	35		
	DTI	A — shipwrights	7	5	7	7	6	4	36		
— painters, blocklayers, carpenters and cabinet-makers	DTI	A — joinery/cabinet making	1	3	5	9	8	2	28	160	1,800 11
	DTI	A — carpentry	2	23	22	24	22	15	129		
	DTI	A — blocklaying plastering	—	—	—	—	—	13	13	13	385 11

Occupation	Training 2 Institution	Course or Qualification	Estimated Supply 3 1970	1971	1972	1973	1974	1975	Total Supply 1970-1975	Total Demand 1970-1985
— transport and material handling equipment operators 9	—	—	—	—	—	—	—	—	—	—
— production and related workers n.e.c. 9	—	—	—	—	—	—	—	—	—	2,350
— labourers 9	—	—	—	—	—	—	—	—	—	—

NOTES: (i) This table is summarised in Table 4.8

(ii) A — Indicates course is an apprenticeship

1 — the demands estimated in this table are for new entrants to the labour force, hence the supply estimates do not include the output from courses which are essentially for upgrading members of the existing labour force.

2 — 'Overseas' supply is an estimate of the graduations of Fiji students in Australia and New Zealand. No allowance has been made for wastage. These estimates exclude an estimated 250 Fiji students studying for degrees or diplomas in India, UK and USA.

3 — these estimates are based on current enrolments, estimated success and dropout rates. In some cases they are simply guesses; e.g. the enrolments at Independent Commercial Schools are not known accurately and the number of students studying in India and UK are not known.

4 — the estimates in this row do not take account of the important fact that a proportion of science graduates will enter administrative and other occupations.

5 — this excludes a large but unknown number of people studying overseas for various nursing qualifications.

6 — the output from the USP's B.A. course has been arbitrarily divided between professional and technical workers n.e.c. and Administrative and Managerial workers.

7 — this demand estimate assumes that of the new trained entrants to this occupation 50 per cent will require a university degree and 25 per cent a diploma or certificate.

8 — the estimated supply of skills in this group includes a small proportion of individuals being upgraded.

9 — with the important exception of marine training, the majority of training for these workers is done on-the-job and therefore no training requirements are estimated for this occupational group.

10 — includes output of motor body building apprenticeship course.

11 — the net demand for groups 9-3 and 9-5 in Table 4.8 has been divided here on the basis of seven carpenters and cabinetmakers to three painters and blocklayers.